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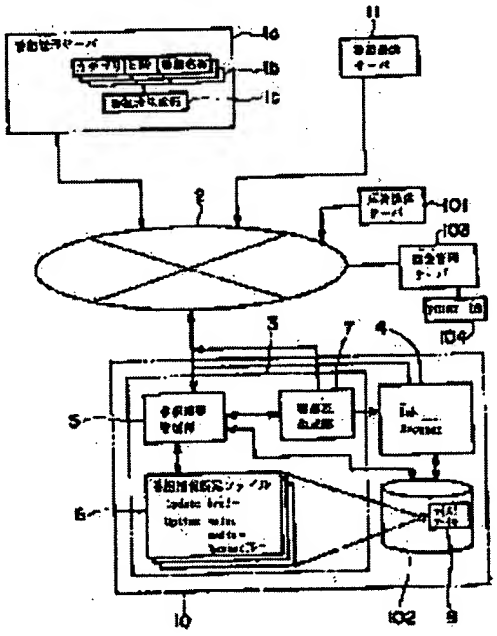
(54) TIME DESIGNATION PROGRAM CONTENTS RECEPTION METHOD, SYSTEM AND MEDIUM

(57)Abstract:

PROBLEM TO BE SOLVED: To easily conduct update management of program information that is distributed at date time designation.

SOLUTION: A program management server 1a provides program information registering a distribution schedule date and time and an address of a distribution server. A client side receiving distribution of the program information registers an acquired date and time of the program information, accesses a program management server 1a, and when program information of the program management server is updated after the acquired date and time of the program information, the program information of the client side 1a is updated based on updated contents. Thus, even when the program distribution date and time is changed, the terminal side can follow the revision.



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* NOTICES *

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CLAIMS

[Claim(s)]
[Claim 1] In the program information which includes distribution time at least, and the approach of distributing the program contents transmitted to the time concerned through a network Distribution time and the step which receives the program information which registered the address of a distribution server, The step which registers said program information acquired from said program management server through the network with the time, at i.e., the time of a date of acquisition, which accessed said program management server, The step which compares the time of the date of acquisition for every access to said program management server, and compares said distribution time currently recorded for every time of a date of acquisition, The time amount assignment program contents receiving approach which consists of a step which rewrites said distribution time based on the content of updating concerned when the distribution time at the time of a new date of acquisition is updated, as a result of comparing.
[Claim 2] In the program information which includes distribution time at least, and the approach of distributing the program contents transmitted to the time concerned through a network Distribution time and the step which receives the program information which registered the address of a distribution server, The step which registers said program information acquired from said program management server through the network, The step which accesses the registered distribution time at a program contents server, receives program contents, and is reproduced, The time amount assignment program contents receiving approach which receives advertising contents from an advertising offer server in advance of reception of said program contents synchronizing with reception, and reproduces these advertising contents.
[Claim 3] Said advertising contents are the time amount assignment program contents receiving approaches according to claim 2 that the advertising contents which are matched with the category of program contents or program contents, and were determined from the reservation hysteresis of the program contents of the past of the user concerned are received.
[Claim 4] Said advertising contents are the time amount assignment program contents receiving approaches according to claim 2 that the advertising contents determined based on the individual humanity news accumulated in the viewing-and-listening terminal unit or the advertising offer server are received.
[Claim 5] The time amount assignment program contents receiving approach according to claim 1 or 2 of generating the general-purpose schedule data which specified a date and time amount from the distribution time of said program information, and displaying viewing-and-listening reservation of the program contents concerned on the general-purpose scheduler of a viewing-and-listening terminal unit.
[Claim 6] The time amount assignment program contents receiving approach according to claim 1 or 2 that accounting information is recorded in said viewing-and-listening terminal unit whenever it registers program information.
[Claim 7] In the system which distributes the program information which includes distribution time at least, and the program contents transmitted to the time concerned through a network The program

management server which has at least distribution time and the program information which registered the address of a distribution server, The program contents offer server which distributes said program contents, and the program information setting-out management tool which registers the program information acquired from said program management server through the network, The time amount assignment program system to offer information which consists of a means to access the distribution time acquired from said program information at said program contents offer server, to acquire the program contents concerned, and to reproduce.

[Claim 8] Said program information setting-out management tool is the time-amount assignment program contents distribution system according to claim 7 which has a means detect that recorded the time of the date of acquisition when accessing said program management server and acquiring said program information with the distribution time of said program information, compared the time of the date of acquisition for every access to said program management server, and said distribution time was updated, and the means which rewrites said distribution time based on the content of updating.

[Claim 9] Said program information setting-out management tool is a time amount assignment program system to offer information [equipped with a race card generation means to generate the race card of a tabular format by the program viewing-and-listening terminal side based on said program information] according to claim 7.

[Claim 10] The step which receives the program information which includes distribution time at least, and the program information which is the program which receives the program contents transmitted to the time concerned through a network, and registered the address of distribution time and a distribution server, The step which registers said program information acquired from said program management server through the network, The storing medium which stored the program which consists of a step which accesses said distribution time at said program contents offer server, and a step which reproduces the program contents obtained from said program contents offer server.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[The technical field to which invention belongs] This invention relates to the technique it becomes easy for a client to grasp [of information distribution time amount] in the communications service distributed by the time amount assignment offered by network environments, such as the Internet.
[0002]
[Description of the Prior Art] If maintenance of a communication link base progresses on the Internet which is a data telecommunication system by TCP/IP, distribution of large capacity multimedia data will be attained. In connection with this, the system which receives offer of contents (the content of a program) in the time set up beforehand like television broadcasting is being built.
[0003] By the way, when you wish access of the contents the user is having the above distribution time amount set up, the playback program in which animation playback is possible is made to stand by in a format like plug-in on the access program beforehand called a browser in the Internet. And if it becomes distribution time amount, a user will specify the address called URL on the Internet by said browser. And if distribution of contents is started from the server specified in the address concerned, on the browser by the side of a user, said playback program will start corresponding to the data format of contents, and viewing and listening of a dynamic image will be attained on a browser.
[0004] However, when having received the contents as which such distribution time amount was specified and the start time of contents distribution was delayed by a certain cause by the side of a server, the user starts the browser of a terminal unit and had to stand by. For example, modification of the start time by change of the weather condition in a sport relay broadcast etc. corresponds to this.
[0005] Moreover, when modification of distribution time amount was determined beforehand, there was also the approach of notifying modification of distribution time amount from a server using advice means, such as an electronic mail, to each user, but since reception reservation of contents was given to a target on the other hand by the program on the terminal by the side of a user, it was difficult [it] to manage all users' mail address by the server side.
[0006] Furthermore, in the user side, since there was no means to grasp visually, about of which contents he is performing distribution reservation, the user had to write down beforehand the viewing-and-listening time of the contents which he reserved.
[0007] This invention is made in view of such a point, and when the content of distribution of the contents in which the user did reservation registration on the terminal has modification, while updating automatically by the content after changing the content of reservation concerned, let it be the 1st technical technical problem to offer the technique with easy grasp of the content of reservation for a user.
[0008] On the other hand, the definition of the synchronization information on which part of a screen to display when is prescribed by SMIL (Synchronized Multimedia Integrated Language)1.0 of W3C (World Wide Web Consortium) as specification of the multimedia information on a network about the multimedia presentation which combined speech information, animation information, text information, and image information.
[0009] However, about the point whether to effort-pay few and to display the multimedia information using such SMIL effectively to a user for an SMIL manufacturer, it was seldom taken into consideration with the conventional technique.
[0010] So, in this invention, the load by the side of the manufacturer in program distribution in a network is reduced, and let it be the 2nd technical technical problem to perform an effective information display to a user.
[0011]
[Means for Solving the Problem] When accessing a distribution server and acquiring program information, this invention records the time of a date of acquisition, compared the distribution time for every time of a date of acquisition, and when it was detected that the distribution time amount of

program contents was changed, it rewrote said distribution time based on the content of modification concerned.
[0012] Moreover, in advance of reception of program contents, advertising contents are received from an advertising offer server synchronizing with reception, and these advertising contents are reproduced.
[0013] A network means for example, the Internet network and program distribution means distribution of the program reproduced with the real player (Real Player) of for example, RealNetworks (Real Networks Inc.) etc. here.
[0014] If the content of the program management server is updated when distribution time is changed with modification of the game schedule of a sport relay broadcast, the important point and needlessness of updating can also judge easily the program information by the side of a program viewing-and-listening terminal by referring to the time of the date of acquisition, and the renewal of automatic of program information will be attained, without waiting for setting-out modification from a user.
[0015] Such a technique can be offered as the add-in program or helper application to a browser program on a program viewing-and-listening terminal, and, specifically, contains all program storages, such as CD-ROM and a floppy disk, with a storage.
[0016]
[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained based on a drawing.
[0017]
[Example 1] Drawing 1 shows the system configuration of this invention. In this drawing, 1a is a program management server and has program information 1b and race card generation section 1c.
[0018] Program information 1b is the format of registering a category, and the offer time and the program name (program ID) of the content of a program, and race card generation section 1c has the function which generates the broadcast schedule race card of a HTML (Hyper Text Mark-up Language) format as shown in drawing 2 based on this program information 1b.
[0019] The program offer server 11 is a server which offers the contents which are actual program data, and has the function which distributes program data to the time amount specified by program information 1b of program management server 1a on a network 2.
[0020] The advertising offer server 101 is the program viewing-and-listening terminal 10 with ready-for-sending ability about the advertising contents which consist of a still picture or an animation as been a server for distributing advertising contents and shown in drawing 10 .
[0021] The accounting management server 103 is being interlocked with the settlement system which is not illustrated, and can perform direct accounting now from a credit card account or a bank account of the user concerned etc. at the time of program reservation with the below-mentioned program viewing-and-listening terminal 10, or program contents viewing and listening. In addition, the point TETA base 104 is established in this accounting management server 103, the mark set up for every program and every viewing-and-listening time amount are accumulated to the user concerned, and offer of the privilege of a discount and others of the amount of accounting is possible.
[0022] In said program management server 1a etc., the program viewing-and-listening terminal 10 is connected via the network 2. TCP/IP, i.e., the Internet, is adopted as this connection protocol, and temporary dial-up connection form is always sufficient as connection form also at connection form.
[0023] The program viewing-and-listening terminal 10 consists of computer systems equipped with means of communications (graphic display abbreviation) and access means (browser 4), such as a personal computer or Web TV.
[0024] On the operating system on the program viewing-and-listening terminal 10, the program viewing-and-listening manager 3 (Stream Reminder) is functioning as this browser 4 (WebBrowser). Internet Explorer to which a browser 4 operates as access application on the Windows of for example, Microsoft Corp. corresponds to this here. Plug-in applications for animation playback, such as a real player of RealNetworks, are beforehand installed in this browser 4, and the dynamic image (program contents) accumulated in the server (here program offer server 11) concerned can be perused by specifying a specific server address (here program offer server 11).

[0025] The program viewing-and-listening manager 3 consists of the program viewing-and-listening Management Department 5, a program information configuration file 6 a user remembers the content of a program which reserved viewing and listening to be, and the race card generation section 7 which generates a race card in a HTML format. The program information configuration file 6 is specifically memorized in the storage 102 of the program viewing-and-listening terminal 10.
[0026] In the above-mentioned configuration, when a user performs viewing-and-listening reservation of a program, first, a browser 4 is started and program management server 1a is accessed. It is displayed on a browser 4 in a format as the race card which race card generation section 1c of program management server 1a generates by this shows to drawing 2 .
[0027] In this condition, the program information about the program concerned is acquired from program management server 1a by specifying the J.League Internet junction in which the user is set as 8 month 5 day 23:00 on the browser 4 with coordinate designating devices, such as a mouse.
[0028] The time of URL of the program offer server 11 and the date of acquisition of the program information concerned is included in this program information, and such information is registered into the program information configuration file 6 in the following formats.
[0029] update href="http://chanclo.impress.co.jp/jleague.ipg"uptime value= -- "01/Aug/1998 19:12:22+09" -- it turns out at the time of the date of acquisition of this program information that it is 7:00 p.m. on August 1, 1998.
[0030] In addition, at the time of the date of acquisition of this program information, not the time in which distribution of program data is planned actually but the time from which the information about program data was acquired at the program viewing-and-listening terminal 10 side by the side of a user is meant.
[0031] In addition, the check of the reservation status by the side of a user is possible by the program reservation check list shown in drawing 3 which the program viewing-and-listening Management Department 5 generates. The category "an event program" of the reserved program, time "23:00 on water, August 5, 98", and the content of a program "1998 J.League Internet junction -" are displayed on the reservation check list concerned.
[0032] The case where the date of distribution of this program information by a certain convenience was changed, and becomes a distribution schedule from 23:00 on water, August 12 is assumed. At this time, the modification information on the program distribution schedule concerned was first reflected on program management server 1a, and in this program management server 1a, when it was renewal of the modification information on distribution time in 9:00 a.m. on August 5, it should be performed.
[0033] Next, if the program viewing-and-listening manager 3 on the program viewing-and-listening terminal 10 is started (step 401), the program viewing-and-listening Management Department 5 will confirm whether the reservation program broadcast on that day exists (402). When the program to which the user is carrying out viewing-and-listening reservation exists in the day here, program management server 1a in which the program information concerned exists is accessed (403), and program information is acquired from the program management server 1a concerned (404).
[0034] Here, when the own program configuration file 6 is compared with the program information file by the side of program management server 1a and the program information file by the side of program management server 1a is not updated, the program viewing-and-listening Management Department 5 receives advice of renewal of un-(406), and checks that the program configuration file 6 which self holds is the newest thing.
[0035] On the other hand, when the program information file by the side of program management server 1a is updated, the updated program information file concerned is received and the own program configuration file 6 is rewritten (407,408,409).
[0036] Here, the program on August 5 which the user reserved is changed on August 12, and the above-mentioned program information file has become uptime value="05/Aug/1998 09:12:22+09" in the program management server 1a side. Therefore, since it turns out that it was updated at 9:00 a.m. on August 5 and, as for this program information, is newer than 7:00 of the afternoon of August 1 which it is at the above-mentioned date-of-acquisition time, the program information of the program viewing-

and-listening Management Department 5 is updated by new program information. Consequently, that distribution time is changed into 23:00 also for the program information which the program viewing-and-listening Management Department 5 manages from 23:00 on August 5 on August 12.
[0037] A modification result can be checked with a program reservation check list, as shown in drawing 5 . Moreover, such program information can also be displayed on a browser 4 as a local race card as handed over by the program viewing-and-listening Management Department 5 at the race card generation section 7 and shown in drawing 6 .
[0038] Drawing 7 shows the update procedure of the program information which used such a local race card. First, the race card of the HTML format generated by race card generation section 1c of program management server 1a is displayed on the browser 4 by the side of a user (701).
[0039] And a user specifies the program which wishes to view and listen from the race card displayed on the browser 4 with coordinate designating devices, such as a mouse, (702). At this time, the specified program information file is sent out to a browser 4 from program management server 1a (703).
[0040] In a browser 4, if this program information file is received, the program viewing-and-listening manager 3 will be started (704), and the program information concerned will be registered into the program viewing-and-listening Management Department 5 (705). Moreover, the program information configuration file 6 is generated with this, and management of the updating time of program information is started.
[0041] Next, from a browser 4, if race card generation is directed (706), based on the program information which said program viewing-and-listening Management Department 5 received, a local race card will be generated by HTML file format in the race card generation section 7 (707), and this will be displayed on a browser 4 (708).
[0042] The program viewing-and-listening Management Department 5 confirms whether access program management server 1a periodically, and the program information on the self reserved is updated (709). Specifically, it can check by whether the content of the program management server is changed using the program configuration file 6 after the time of the date of acquisition of the program information.
[0043] Here, when the program information on program management server 1a is updated, the updated program information file concerned is received (710), and the race card generation section 7 generates a new local race card based on this updated program information file (711). And this updated race card is displayed on a browser 4 (712).
[0044] In addition, you may make it sweep out the data of time and a program name to individual schedule pipe ** application by CSV file format based on a program information file at this time (711a). What is necessary is just to make program information specifically output in the format which can be imported to this application, when OutLook (personal-information-management application of Microsoft Corp.) is installed on OS of the personal computer concerned. Thereby, a user can check program viewing-and-listening reservation also on individual schedule pipe ** application with the race card in a HTML format.
[0045]
[Example 2] Drawing 8 shows the system configuration for urging viewing and listening of a program explained in the example 1.
[0046] In this example 2, a text file and the management file which manages these integrative reduce the burden by the side of a server to the still picture offered through a network 2 from the program offer server 11 or the advertising offer server 101, voice, and animation information by generating by the user-terminal side and reproducing by the playback program 12 on a browser 4.
[0047] First, if the program viewing-and-listening Management Department 5 compares the time information from a timer 13 with the time information on the program information which self holds and becomes several hours before a viewing-and-listening predetermined time, it will read a dialog as shown in drawing 11 from an own storage means, and will display on a browser 4 (901).
[0048] If the dialog shown in this drawing is specified by coordinate directions means, such as a mouse, (902), the program viewing-and-listening Management Department 5 will hand over the still picture file

which received from the program offer server 11 or the advertising offer server 101, and the text file 9 held in the own storage 102 and the management file generated in person to the playback program 12 (904).
[0049] This management file is generated based on the program information which the program viewing-and-listening Management Department 5 received beforehand from the program offer server 11 explained in the example 1 (903).
[0050] The management information to which time amount to reproduce said still picture file and text file at least in which location on a screen is included in this management file. The playback program 12 reproduces said text file and still picture file based on the information on this management file (905). It is drawings 1010 and 12 which showed an example of this playback result.
[0051] Thus, in this example 2, by synchronizing the still picture file offered from the program offer server 11, and the text file generated by the user-terminal side by the management file, and reproducing on a screen, compared with the case where bundle up by the server side and all files are offered, reduction of the transfer data from a server and effort reduction by the side of program work can be aimed at, and the high information on an effect of advertising can be further offered to a user.
[0052]
[Example 3] This example is an example about the class of advertising contents offered in advance of program contents.
[0053] The program contents stored in the program offer server 11 concerned download to the program viewing-and-listening terminal 10 by specifying URL of the program offer server 11 from the program viewing-and-listening terminal 10 at the time of program viewing and listening with the program viewing-and-listening terminal 10. At this time, the program viewing-and-listening Management Department 5 reads Banner ID out of the program information configuration file 6. This banner ID specifies URL of the advertising contents stored in the advertising offer server 101, and advertising contents are uniquely determined for every program.
[0054] It is drawing 10 which showed the concrete example of a display on the browser 4 of these advertising contents. The still picture file of advertising contents is downloaded from the advertising offer server 101, and you may make it read a text file 9 from the inside of the own storage 102 at this time, as the example 1 explained.
[0055] Although they were explained by the above explanation that advertising contents were uniquely determined as a banner ID from program information, on the occasion of offer of advertising contents, the contents table 1301 shown in drawing 13 may be used. This contents table 1301 is set as the inside of the store 102 of the program viewing-and-listening terminal 10, or the advertising offer server 101. A user's address where the contents table 1301 concerned views and listens to program contents at the program viewing-and-listening terminal 10 and category of program contents, and URL of the advertising contents corresponding to the category concerned are matched.
[0056] Here, the category of program contents can acquire the category of the program contents concerned by copying to the program information configuration file 6 as it is, when downloading program information 1b of program offer server 1a.
[0057] On the contents table 1301, the optimal advertising contents for the user who is a viewer can be offered now based on the category of these program contents. That is, supposing the program contents to which the user performed program viewing-and-listening reservation are "baseball relay broadcasts", a "sport" will be set up as the category and URL of the advertising contents relevant to a sport will be determined.
[0058] Thus, a user can view and listen to the advertising contents which were suitable for the category of this program synchronizing with distribution of program contents in advance of distribution of the reserved program contents.
[0059] Moreover, as a program provider side, the advertising contents for the enterprises PR, such as a sponsor, can be offered on the occasion of program viewing and listening by resetting up this contents table 1301.
[0060]

[Example 4] In case this example performs program reservation viewing and listening in the example 1, it is an example which added reservation sound recording / image transcription function of the program concerned.
[0061] This example 4 can also perform now sound recording / image transcription reservation of program contents with viewing-and-listening reservation at the program viewing-and-listening Management Department 5 in the case of the program reservation to the program information configuration file 6.
[0062] In order to realize this function, this preservation place file that enables it to specify a preservation place file name as the creation time of the program information configuration file 6 is set as storage 102.
[0063] Moreover, the program viewing-and-listening Management Department 5 has sound recording / image transcription section 1401, and this sound recording / image transcription section 1401 has the function to save them at storage 102 as one of the programs of the program viewing-and-listening Management Department 5, using program contents data as voice data or an animation data file.
[0064] Next, the procedure of this example is explained using drawing 14 . First, in case the program viewing-and-listening Management Department 5 performs program reservation based on the program information on the program management server 1, a user is made to specify a preservation place file name (1401). Although a file is set as a store 102 here, when there is no file designation, the program viewing-and-listening Management Department 5 may generate automatically from the data of reservation time as a default.
[0065] Next, if program broadcast schedule time of day comes, a dialog as shown in drawing 11 will be displayed on a browser 4 (1402). Here, if a user specifies the playback carbon button (Play) shown in drawing 11 (1404), while the playback program in the usual program viewing-and-listening program will start, sound recording / image transcription program (sound recording / image transcription section 1401) is started (1405).
[0066] With the starting directions from said program viewing-and-listening Management Department 5, sound recording / image transcription section 1401 records playback data (voice data or video data) on storage 102 by the file name defined by the program information configuration file 6 (1406).
[0067] Thus, into storage 102, the program contents which carried out sound recording / image transcription reservation are accumulated. In addition, although the example which sound recording / image transcription function starts because a user performs playback directions explained at step 1403, you may make it the program viewing-and-listening Management Department 5 start sound recording / image transcription section 1401 promptly, if the actuation by the side of such a user becomes nothing program start time.
[0068] Moreover, program reservation is effective to no programs, for example, can also be made not to permit sound recording and an image transcription by the intention by the side of a contents provider in programs, such as a sport relay broadcast and a concert.
[0069] For example, the program viewing-and-listening Management Department 5 performs the inquiry to the program management server 1, and may enable it to confirm whether to be the program to which sound recording / image transcription reservation is permitted on the occasion of the registration to the program information configuration file at the time of reservation.
[0070]
[Effect of the Invention] According to this invention, it can respond to modification of the content of program distribution flexibly, and the renewal of automatic of the program information by the side of a program viewing-and-listening terminal is attained. Moreover, the effort by the side of program work can be reduced, and the high information on the viewing-and-listening effectiveness can be offered.

TECHNICAL FIELD

[The technical field to which invention belongs] This invention relates to the technique it becomes easy for a client to grasp [of information distribution time amount] in the communications service distributed by the time amount assignment offered by network environments, such as the Internet.

PRIOR ART

[Description of the Prior Art] If maintenance of a communication link base progresses on the Internet which is a data telecommunication system by TCP/IP, distribution of large capacity multimedia data will be attained. In connection with this, the system which receives offer of contents (the content of a program) in the time set up beforehand like television broadcasting is being built.

[0003] By the way, when you wish access of the contents the user is having the above distribution time amount set up, the playback program in which animation playback is possible is made to stand by in a format like plug-in on the access program beforehand called a browser in the Internet. And if it becomes distribution time amount, a user will specify the address called URL on the Internet by said browser. And if distribution of contents is started from the server specified in the address concerned, on the browser by the side of a user, said playback program will start corresponding to the data format of contents, and viewing and listening of a dynamic image will be attained on a browser.

[0004] However, when having received the contents as which such distribution time amount was specified and the start time of contents distribution was delayed by a certain cause by the side of a server, the user starts the browser of a terminal unit and had to stand by. For example, modification of the start time by change of the weather condition in a sport relay broadcast etc. corresponds to this.

[0005] Moreover, when modification of distribution time amount was determined beforehand, there was also the approach of notifying modification of distribution time amount from a server using advice means, such as an electronic mail, to each user, but since reception reservation of contents was given to a target on the other hand by the program on the terminal by the side of a user, it was difficult [it] to manage all users' mail address by the server side.

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[0010] So, in this invention, the load by the side of the manufacturer in program distribution in a network is reduced, and let it be the 2nd technical technical problem to perform an effective information display to a user.

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EFFECT OF THE INVENTION

[Effect of the Invention] According to this invention, it can respond to modification of the content of program distribution flexibly, and the renewal of automatic of the program information by the side of a program viewing-and-listening terminal is attained. Moreover, the effort by the side of program work can be reduced, and the high information on the viewing-and-listening effectiveness can be offered.

[Translation done.]

MEANS

[Means for Solving the Problem] When accessing a distribution server and acquiring program information, this invention records the time of a date of acquisition, compared the distribution time for every time of a date of acquisition, and when it was detected that the distribution time amount of program contents was changed, it rewrote said distribution time based on the content of modification concerned.
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[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained based on a drawing.
[0017]
[Example 1] Drawing 1 shows the system configuration of this invention. In this drawing, 1a is a program management server and has program information 1b and race card generation section 1c.
[0018] Program information 1b is the format of registering a category, and the offer time and the program name (program ID) of the content of a program, and race card generation section 1c has the function which generates the broadcast schedule race card of a HTML (Hyper Text Mark-up Language) format as shown in drawing 2 based on this program information 1b.
[0019] The program offer server 11 is a server which offers the contents which are actual program data, and has the function which distributes program data to the time amount specified by program information 1b of program management server 1a on a network 2.
[0020] The advertising offer server 101 is the program viewing-and-listening terminal 10 with ready-for-sending ability about the advertising contents which consist of a still picture or an animation as been a server for distributing advertising contents and shown in drawing 10 .
[0021] The accounting management server 103 is being interlocked with the settlement system which is not illustrated, and can perform direct accounting now from a credit card account or a bank account of the user concerned etc. at the time of program reservation with the below-mentioned program viewing-and-listening terminal 10, or program contents viewing and listening. In addition, the point TETA base 104 is established in this accounting management server 103, the mark set up for every program and every viewing-and-listening time amount are accumulated to the user concerned, and offer of the privilege of a discount and others of the amount of accounting is possible.
[0022] In said program management server 1a etc., the program viewing-and-listening terminal 10 is connected via the network 2. TCP/IP, i.e., the Internet, is adopted as this connection protocol, and temporary dial-up connection form is always sufficient as connection form also at connection form.
[0023] The program viewing-and-listening terminal 10 consists of computer systems equipped with means of communications (graphic display abbreviation) and access means (browser 4), such as a personal computer or Web TV.
[0024] On the operating system on the program viewing-and-listening terminal 10, the program viewing-and-listening manager 3 (Stream Reminder) is functioning as this browser 4 (WebBrowser).

Internet Explorer to which a browser 4 operates as access application on the Windows of for example, Microsoft Corp. corresponds to this here. Plug-in applications for animation playback, such as a real player of RealNetworks, are beforehand installed in this browser 4, and the dynamic image (program contents) accumulated in the server (here program offer server 11) concerned can be perused by specifying a specific server address (here program offer server 11).

[0025] The program viewing-and-listening manager 3 consists of the program viewing-and-listening Management Department 5, a program information configuration file 6 a user remembers the content of a program which reserved viewing and listening to be, and the race card generation section 7 which generates a race card in a HTML format. The program information configuration file 6 is specifically memorized in the storage 102 of the program viewing-and-listening terminal 10.

[0026] In the above-mentioned configuration, when a user performs viewing-and-listening reservation of a program, first, a browser 4 is started and program management server 1a is accessed. It is displayed on a browser 4 in a format as the race card which race card generation section 1c of program management server 1a generates by this shows to drawing 2 .

[0027] In this condition, the program information about the program concerned is acquired from program management server 1a by specifying the J.League Internet junction in which the user is set as 8 month 5 day 23:00 on the browser 4 with coordinate designating devices, such as a mouse.

[0028] The time of URL of the program offer server 11 and the date of acquisition of the program information concerned is included in this program information, and such information is registered into the program information configuration file 6 in the following formats.

[0029] update href="http://chanclo.impress.co.jp/jleague.ipg"uptime value= -- "01/Aug/1998 19:12:22+09" -- it turns out at the time of the date of acquisition of this program information that it is 7:00 p.m. on August 1, 1998.

[0030] In addition, at the time of the date of acquisition of this program information, not the time in which distribution of program data is planned actually but the time from which the information about program data was acquired at the program viewing-and-listening terminal 10 side by the side of a user is meant.

[0031] In addition, the check of the reservation status by the side of a user is possible by the program reservation check list shown in drawing 3 which the program viewing-and-listening Management Department 5 generates. The category "an event program" of the reserved program, time "23:00 on water, August 5, 98", and the content of a program "1998 J.League Internet junction -" are displayed on the reservation check list concerned.

[0032] The case where the date of distribution of this program information by a certain convenience was changed, and becomes a distribution schedule from 23:00 on water, August 12 is assumed. At this time, the modification information on the program distribution schedule concerned was first reflected on program management server 1a, and in this program management server 1a, when it was renewal of the modification information on distribution time in 9:00 a.m. on August 5, it should be performed.

[0033] Next, if the program viewing-and-listening manager 3 on the program viewing-and-listening terminal 10 is started (step 401), the program viewing-and-listening Management Department 5 will confirm whether the reservation program broadcast on that day exists (402). When the program to which the user is carrying out viewing-and-listening reservation exists in the day here, program management server 1a in which the program information concerned exists is accessed (403), and program information is acquired from the program management server 1a concerned (404).

[0034] Here, when the own program configuration file 6 is compared with the program information file by the side of program management server 1a and the program information file by the side of program management server 1a is not updated, the program viewing-and-listening Management Department 5 receives advice of renewal of un-(406), and checks that the program configuration file 6 which self holds is the newest thing.

[0035] On the other hand, when the program information file by the side of program management server 1a is updated, the updated program information file concerned is received and the own program configuration file 6 is rewritten (407,408,409).

[0036] Here, the program on August 5 which the user reserved is changed on August 12, and the above-mentioned program information file has become uptime value="05/Aug/1998 09:12:22+09" in the program management server 1a side. Therefore, since it turns out that it was updated at 9:00 a.m. on August 5 and, as for this program information, is newer than 7:00 of the afternoon of August 1 which it is at the above-mentioned date-of-acquisition time, the program information of the program viewing-and-listening Management Department 5 is updated by new program information. Consequently, that distribution time is changed into 23:00 also for the program information which the program viewing-and-listening Management Department 5 manages from 23:00 on August 5 on August 12.
[0037] A modification result can be checked with a program reservation check list, as shown in drawing 5 . Moreover, such program information can also be displayed on a browser 4 as a local race card as handed over by the program viewing-and-listening Management Department 5 at the race card generation section 7 and shown in drawing 6 .
[0038] Drawing 7 shows the update procedure of the program information which used such a local race card. First, the race card of the HTML format generated by race card generation section 1c of program management server 1a is displayed on the browser 4 by the side of a user (701).
[0039] And a user specifies the program which wishes to view and listen from the race card displayed on the browser 4 with coordinate designating devices, such as a mouse, (702). At this time, the specified program information file is sent out to a browser 4 from program management server 1a (703).
[0040] In a browser 4, if this program information file is received, the program viewing-and-listening manager 3 will be started (704), and the program information concerned will be registered into the program viewing-and-listening Management Department 5 (705). Moreover, the program information configuration file 6 is generated with this, and management of the updating time of program information is started.
[0041] Next, from a browser 4, if race card generation is directed (706), based on the program information which said program viewing-and-listening Management Department 5 received, a local race card will be generated by HTML file format in the race card generation section 7 (707), and this will be displayed on a browser 4 (708).
[0042] The program viewing-and-listening Management Department 5 confirms whether access program management server 1a periodically, and the program information on the self reserved is updated (709). Specifically, it can check by whether the content of the program management server is changed using the program configuration file 6 after the time of the date of acquisition of the program information.
[0043] Here, when the program information on program management server 1a is updated, the updated program information file concerned is received (710), and the race card generation section 7 generates a new local race card based on this updated program information file (711). And this updated race card is displayed on a browser 4 (712).
[0044] In addition, you may make it sweep out the data of time and a program name to individual schedule pipe ** application by CSV file format based on a program information file at this time (711a). What is necessary is just to make program information specifically output in the format which can be imported to this application, when OutLook (personal-information-management application of Microsoft Corp.) is installed on OS of the personal computer concerned. Thereby, a user can check program viewing-and-listening reservation also on individual schedule pipe ** application with the race card in a HTML format.
[0045]
[Example 2] Drawing 8 shows the system configuration for urging viewing and listening of a program explained in the example 1.
[0046] In this example 2, a text file and the management file which manages these integrative reduce the burden by the side of a server to the still picture offered through a network 2 from the program offer server 11 or the advertising offer server 101, voice, and animation information by generating by the user-terminal side and reproducing by the playback program 12 on a browser 4.
[0047] First, if the program viewing-and-listening Management Department 5 compares the time

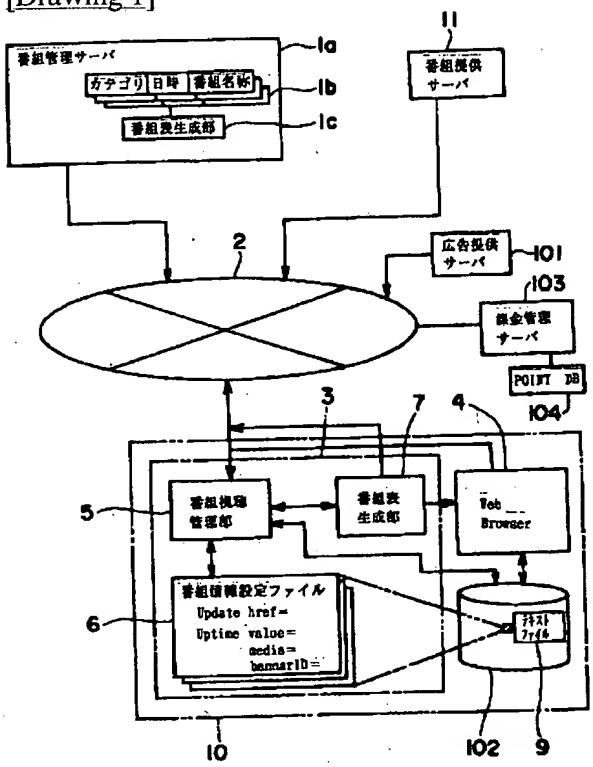
information from a timer 13 with the time information on the program information which self holds and becomes several hours before a viewing-and-listening predetermined time, it will read a dialog as shown in drawing 11 from an own storage means, and will display on a browser 4 (901).
[0048] If the dialog shown in this drawing is specified by coordinate directions means, such as a mouse, (902), the program viewing-and-listening Management Department 5 will hand over the still picture file which received from the program offer server 11 or the advertising offer server 101, and the text file 9 held in the own storage 102 and the management file generated in person to the playback program 12 (904).
[0049] This management file is generated based on the program information which the program viewing-and-listening Management Department 5 received beforehand from the program offer server 11 explained in the example 1 (903).
[0050] The management information to which time amount to reproduce said still picture file and text file at least in which location on a screen is included in this management file. The playback program 12 reproduces said text file and still picture file based on the information on this management file (905). It is drawings 1010 and 12 which showed an example of this playback result.
[0051] Thus, in this example 2, by synchronizing the still picture file offered from the program offer server 11, and the text file generated by the user-terminal side by the management file, and reproducing on a screen, compared with the case where bundle up by the server side and all files are offered, reduction of the transfer data from a server and effort reduction by the side of program work can be aimed at, and the high information on an effect of advertising can be further offered to a user.
[0052]
[Example 3] This example is an example about the class of advertising contents offered in advance of program contents.
[0053] The program contents stored in the program offer server 11 concerned download to the program viewing-and-listening terminal 10 by specifying URL of the program offer server 11 from the program viewing-and-listening terminal 10 at the time of program viewing and listening with the program viewing-and-listening terminal 10. At this time, the program viewing-and-listening Management Department 5 reads Banner ID out of the program information configuration file 6. This banner ID specifies URL of the advertising contents stored in the advertising offer server 101, and advertising contents are uniquely determined for every program.
[0054] It is drawing 10 which showed the concrete example of a display on the browser 4 of these advertising contents. The still picture file of advertising contents is downloaded from the advertising offer server 101, and you may make it read a text file 9 from the inside of the own storage 102 at this time, as the example 1 explained.
[0055] Although they were explained by the above explanation that advertising contents were uniquely determined as a banner ID from program information, on the occasion of offer of advertising contents, the contents table 1301 shown in drawing 13 may be used. This contents table 1301 is set as the inside of the store 102 of the program viewing-and-listening terminal 10, or the advertising offer server 101. A user's address where the contents table 1301 concerned views and listens to program contents at the program viewing-and-listening terminal 10 and category of program contents, and URL of the advertising contents corresponding to the category concerned are matched.
[0056] Here, the category of program contents can acquire the category of the program contents concerned by copying to the program information configuration file 6 as it is, when downloading program information 1b of program offer server 1a.
[0057] On the contents table 1301, the optimal advertising contents for the user who is a viewer can be offered now based on the category of these program contents. That is, supposing the program contents to which the user performed program viewing-and-listening reservation are "baseball relay broadcasts", a "sport" will be set up as the category and URL of the advertising contents relevant to a sport will be determined.
[0058] Thus, a user can view and listen to the advertising contents which were suitable for the category of this program synchronizing with distribution of program contents in advance of distribution of the

reserved program contents.
[0059] Moreover, as a program provider side, the advertising contents for the enterprises PR, such as a sponsor, can be offered on the occasion of program viewing and listening by resetting up this contents table 1301.
[0060]
[Example 4] In case this example performs program reservation viewing and listening in the example 1, it is an example which added reservation sound recording / image transcription function of the program concerned.
[0061] This example 4 can also perform now sound recording / image transcription reservation of program contents with viewing-and-listening reservation at the program viewing-and-listening Management Department 5 in the case of the program reservation to the program information configuration file 6.
[0062] In order to realize this function, this preservation place file that enables it to specify a preservation place file name as the creation time of the program information configuration file 6 is set as storage 102.
[0063] Moreover, the program viewing-and-listening Management Department 5 has sound recording / image transcription section 1401, and this sound recording / image transcription section 1401 has the function to save them at storage 102 as one of the programs of the program viewing-and-listening Management Department 5, using program contents data as voice data or an animation data file.
[0064] Next, the procedure of this example is explained using drawing 14 . First, in case the program viewing-and-listening Management Department 5 performs program reservation based on the program information on the program management server 1, a user is made to specify a preservation place file name (1401). Although a file is set as a store 102 here, when there is no file designation, the program viewing-and-listening Management Department 5 may generate automatically from the data of reservation time as a default.
[0065] Next, if program broadcast schedule time of day comes, a dialog as shown in drawing 11 will be displayed on a browser 4 (1402). Here, if a user specifies the playback carbon button (Play) shown in drawing 11 (1404), while the playback program in the usual program viewing-and-listening program will start, sound recording / image transcription program (sound recording / image transcription section 1401) is started (1405).
[0066] With the starting directions from said program viewing-and-listening Management Department 5, sound recording / image transcription section 1401 records playback data (voice data or video data) on storage 102 by the file name defined by the program information configuration file 6 (1406).
[0067] Thus, into storage 102, the program contents which carried out sound recording / image transcription reservation are accumulated. In addition, although the example which sound recording / image transcription function starts because a user performs playback directions explained at step 1403, you may make it the program viewing-and-listening Management Department 5 start sound recording / image transcription section 1401 promptly, if the actuation by the side of such a user becomes nothing program start time.
[0068] Moreover, program reservation is effective to no programs, for example, can also be made not to permit sound recording and an image transcription by the intention by the side of a contents provider in programs, such as a sport relay broadcast and a concert.
[0069] For example, the program viewing-and-listening Management Department 5 performs the inquiry to the program management server 1, and may enable it to confirm whether to be the program to which sound recording / image transcription reservation is permitted on the occasion of the registration to the program information configuration file at the time of reservation.

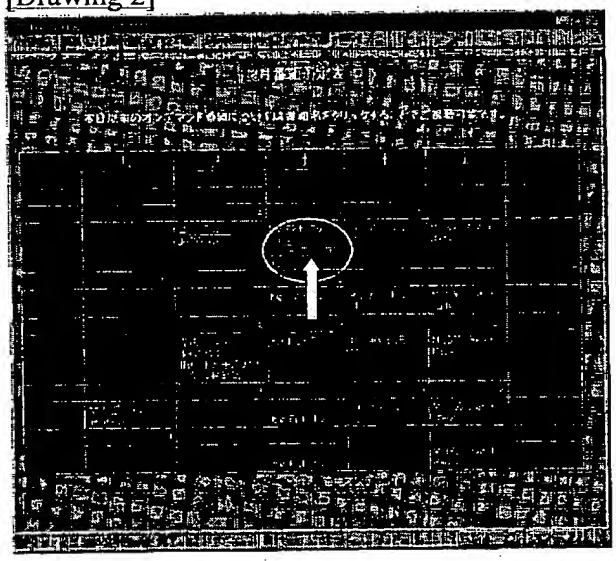
DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] System configuration drawing in an example 1
[Drawing 2] The example of the race card generated by the program management server
[Drawing 3] The example of the program reservation check list displayed on a program viewing-and-listening terminal
[Drawing 4] The sequence diagram showing the update procedure of program information
[Drawing 5] The example of the program reservation check list after updating
[Drawing 6] The example of a local race card
[Drawing 7] The sequence diagram showing procedure with the program management server at the time of generating a local race card
[Drawing 8] System configuration drawing in an example 2
[Drawing 9] The sequence diagram showing procedure with the program offer server in an example 2
[Drawing 10] The example of a display on the program viewing-and-listening terminal in an example 2 (1)
[Drawing 11] The dialog displayed on a program viewing-and-listening terminal
[Drawing 12] The example of a display on the program viewing-and-listening terminal in an example 2 (2)
[Drawing 13] The explanatory view of the contents table in an example 3
[Drawing 14] The sequence diagram showing the procedure of the reservation sound recording and the image transcription of the program in an example 4
[Description of Notations]
1a Program management server
1b Program information
1c Race card generation section
2 Network
3 Program Viewing-and-Listening Manager
4 Browser
5 Program Viewing-and-Listening Management Department
6 Program Information Configuration File
7 Race Card Generation Section
9 Text File
10 Program Viewing-and-Listening Terminal
11 Program Offer Server
12 Playback Program
13 Timer
101 Advertising Offer Server
102 Storage
104 Point Database
1301 Contents Table

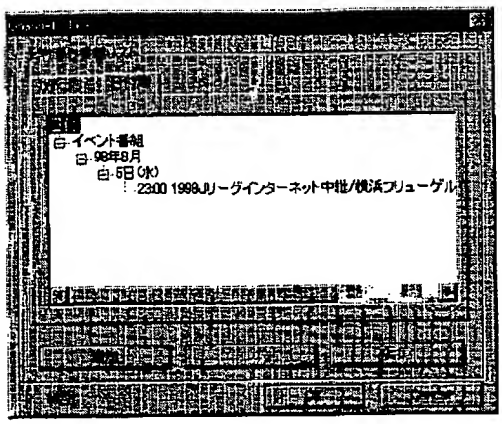
[Drawing 1]



[Drawing 2]

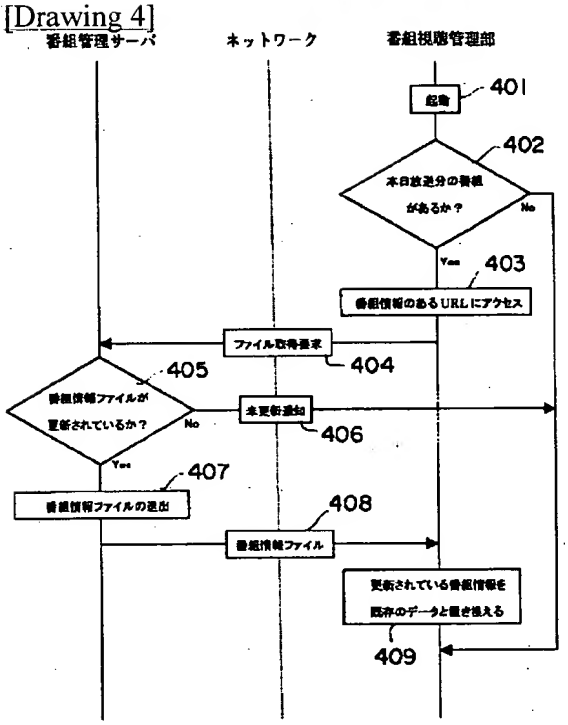


[Drawing 3]

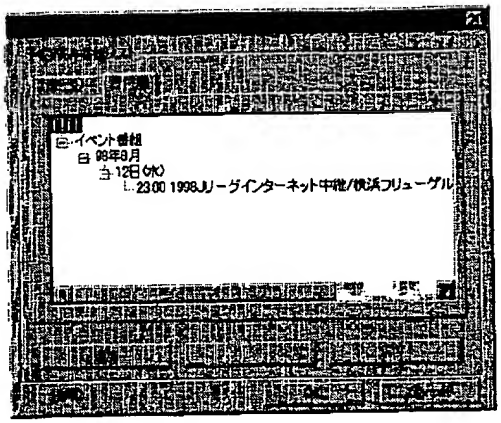


[Drawing 11]

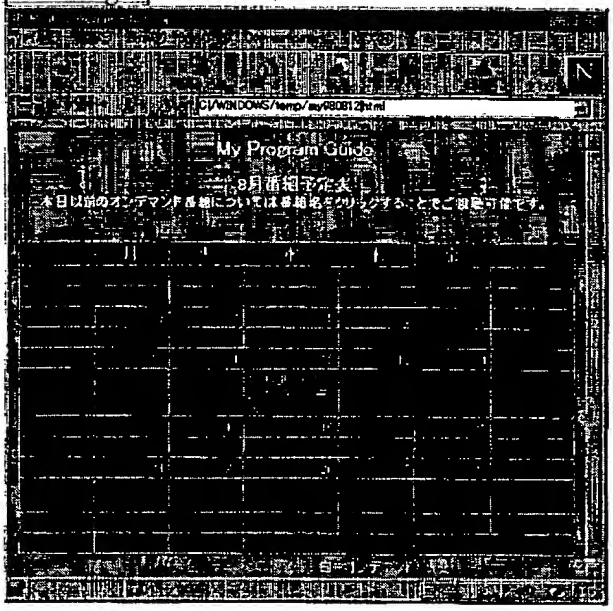
[Drawing 4]



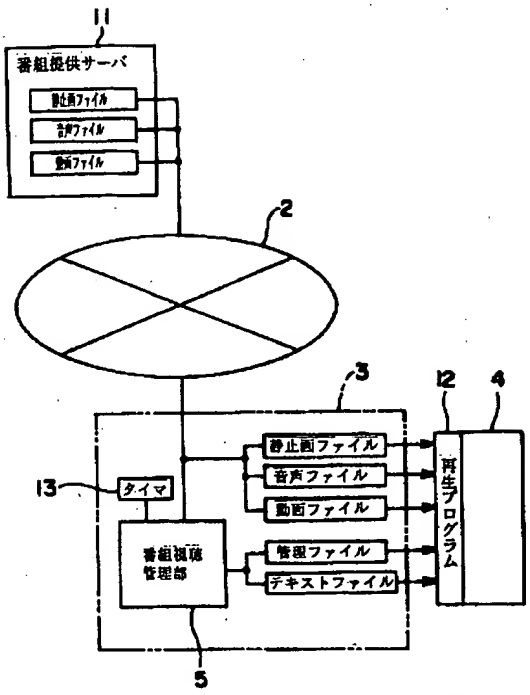
[Drawing 5]



[Drawing 6]

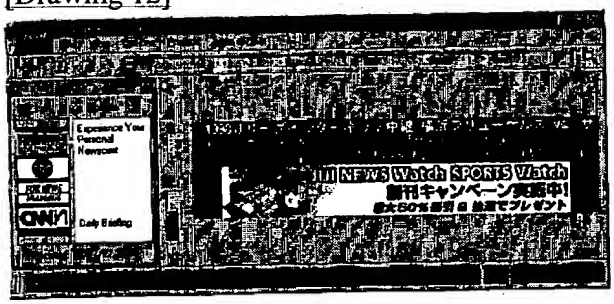


[Drawing 8]

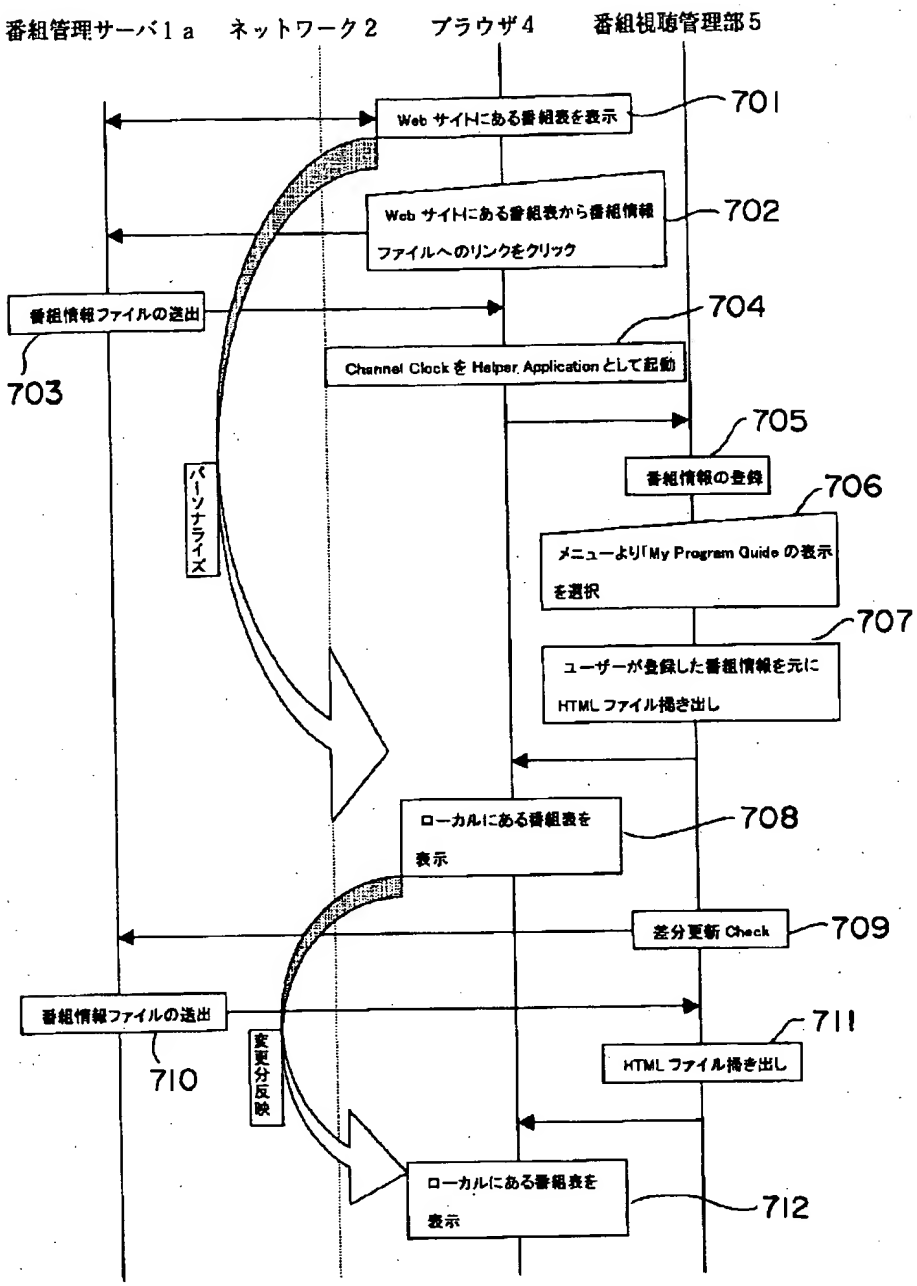


[Drawing 10]

[Drawing 12]



[Drawing 7]

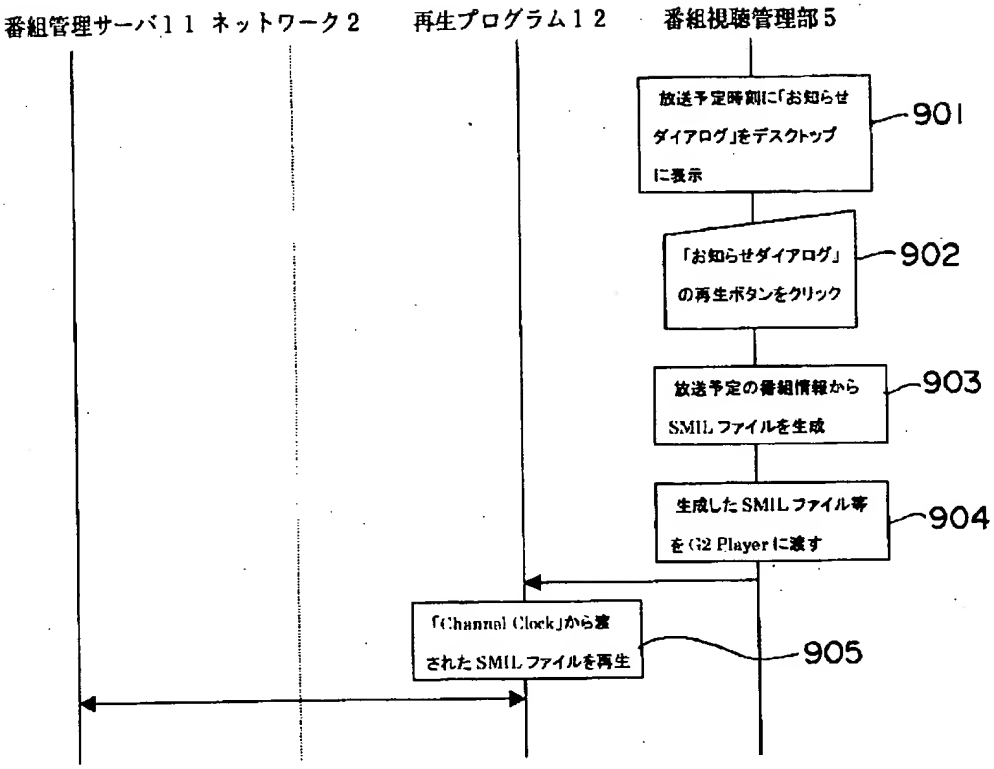


[Drawing 13]

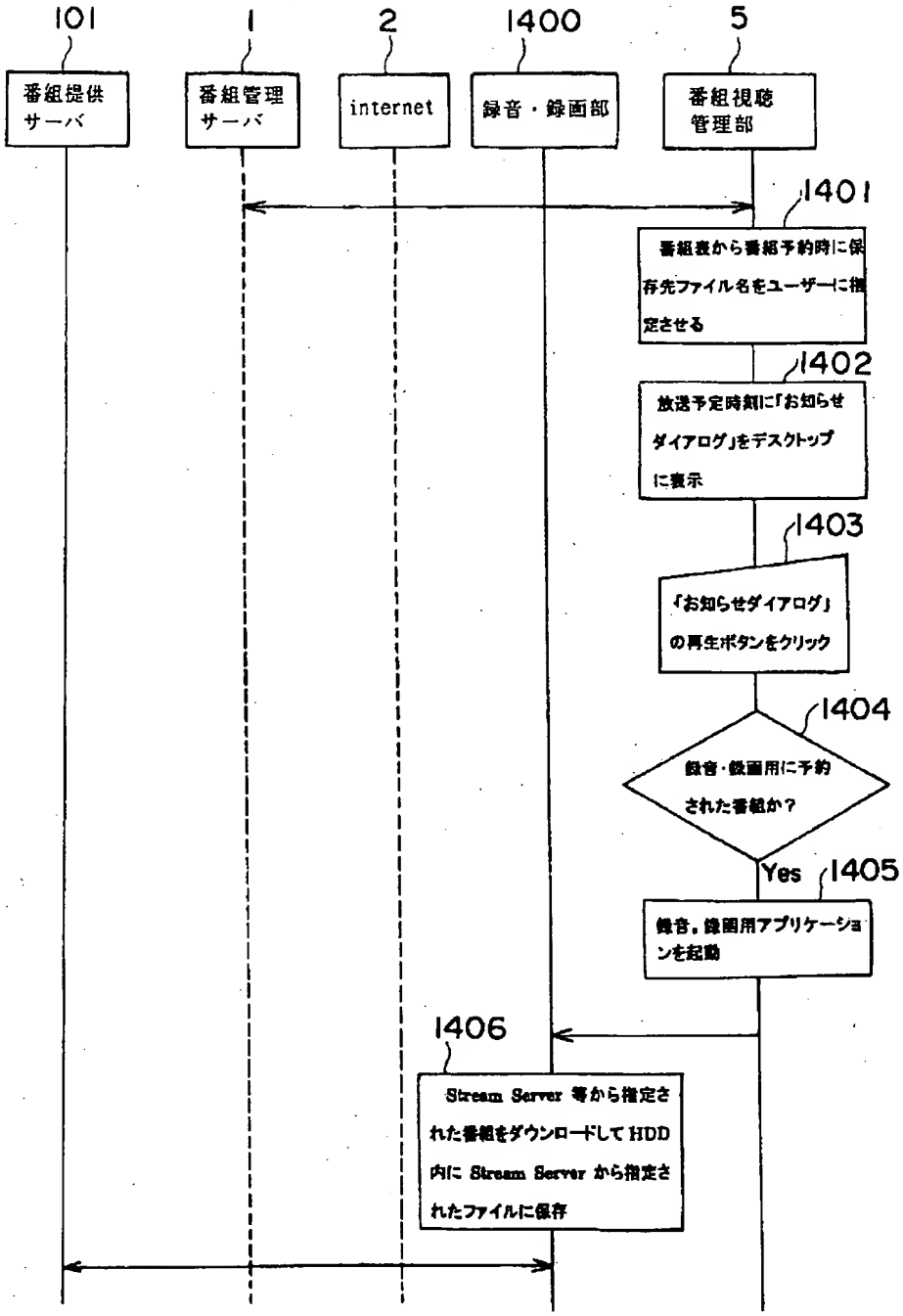
1301

ユーザーアドレス	カテゴリ	提供広告コンテンツ
abcd @ impress.co.jp	音楽	http:// www. xyz-html http:// www. abc/xy
	スポーツ	http:// abz/xyL/
zzz @ abc.ne.jp	教養	xyz. exe
⋮	⋮	⋮

[Drawing 9]


番組管理サーバ１１
ネットワーク２
再生プログラム１２
番組視聴管理部５
放送予定時刻に「お知らせダイアログ」をデスクトップに表示
901
「お知らせダイアログ」の再生ボタンをクリック
902
放送予定の番組情報からSMILファイルを生成
903
生成したSMILファイル等をG2 Playerに渡す
904
「Channel Clock」から渡されたSMILファイルを再生
905

[Drawing 14]


101
1
2
1400
5
番組提供サーバ
番組管理サーバ
internet
録音・録画部
番組視聴管理部
1401
番組表から番組予約時に保存先ファイル名をユーザーに指定させる
1402
放送予定時刻に「お知らせダイアログ」をデスクトップに表示
1403
「お知らせダイアログ」の再生ボタンをクリック
1404
録音・録画用に予約された番組か？
Yes
1405
録音，録画用アプリケーションを起動
1406
Stream Server 等から指定された番組をダウンロードして HDD 内に Stream Server から指定されたファイルに保存

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H04H 1/02		G06F 15/40	310	F	
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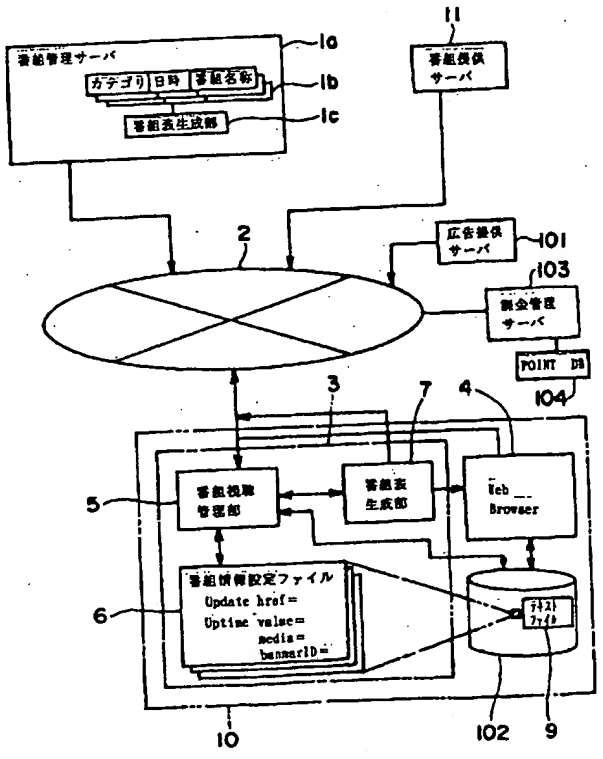
(54)【発明の名称】時間指定番組コンテンツ受信方法、システムおよび媒体

(57)【要約】
【課題】　日時指定で配信される番組情報の更新管理を容易に行う
【解決手段】　番組管理サーバで配信予定日時と配信サーバのアドレスを登録した番組情報を提供するようにして、この番組情報の配信を受けたクライアント側では、前記番組情報の取得日時を登録しておき、番組管理サーバにアクセスして前記番組情報の取得日時以後に前記番組管理サーバの番組情報が更新されているときにはその更新された内容でクライアント側の番組情報も更新するようにした。これによって、番組の配信日時が変更になっても端末側で変更に追従できるようになる。



1

【特許請求の範囲】

【請求項１】　少なくとも配信日時を含む番組情報と、当該日時に送信される番組コンテンツをネットワークを通じて配信する方法において、

配信日時と配信サーバのアドレスを登録した番組情報を受信するステップと、

ネットワークを通じて前記番組管理サーバから得た前記番組情報を、前記番組管理サーバにアクセスした日時すなわち取得日時とともに登録するステップと、

前記番組管理サーバへのアクセス毎の取得日時を比較して、取得日時毎に記録されている前記配信日時を比較するステップと、

比較した結果、新たな取得日時における配信日時が更新されているときには、当該更新内容に基づいて前記配信日時を書き換えるステップとからなる時間指定番組コンテンツ受信方法。

【請求項２】　少なくとも配信日時を含む番組情報と、当該日時に送信される番組コンテンツをネットワークを通じて配信する方法において、

配信日時と配信サーバのアドレスを登録した番組情報を受信するステップと、

ネットワークを通じて前記番組管理サーバから得た前記番組情報を登録するステップと、

登録された配信日時に番組コンテンツサーバにアクセスして番組コンテンツを受信し再生するステップと、

前記番組コンテンツの受信に先だちまたは受信と同期して広告提供サーバから広告コンテンツを受信して該広告コンテンツを再生する時間指定番組コンテンツ受信方法。

【請求項３】　前記広告コンテンツは、番組コンテンツまたは番組コンテンツのカテゴリと対応付けられており、当該ユーザーの過去の番組コンテンツの予約履歴から決定された広告コンテンツが受信される請求項２記載の時間指定番組コンテンツ受信方法。

【請求項４】　前記広告コンテンツは、視聴端末装置または広告提供サーバに蓄積された個人情報に基づいて決定された広告コンテンツが受信される請求項２記載の時間指定番組コンテンツ受信方法。

【請求項５】　前記番組情報の配信日時から日付および時間を指定した汎用のスケジュールデータを生成し、視聴端末装置の汎用のスケジューラに当該番組コンテンツの視聴予約を表示させる請求項１または２記載の時間指定番組コンテンツ受信方法。

【請求項６】　前記視聴端末装置において、番組情報を登録する度に課金情報が記録される請求項１または２記載の時間指定番組コンテンツ受信方法。

【請求項７】　少なくとも配信日時を含む番組情報と、当該日時に送信される番組コンテンツをネットワークを通じて配信するシステムにおいて、

少なくとも配信日時と配信サーバのアドレスを登録した

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番組情報を有する番組管理サーバと、

前記番組コンテンツを配信する番組コンテンツ提供サーバと、

ネットワークを通じて前記番組管理サーバから得た番組情報を登録する番組情報設定管理手段と、

前記番組情報から得られた配信日時に前記番組コンテンツ提供サーバにアクセスして当該番組コンテンツを取得し再生する手段とからなる時間指定番組情報提供システム。

【請求項８】　前記番組情報設定管理手段は、前記番組管理サーバにアクセスして前記番組情報を取得したときの取得日時を前記番組情報の配信日時とともに記録し、前記番組管理サーバへのアクセス毎の取得日時を比較して、前記配信日時が更新されたことを検出する手段と、更新内容に基づいて前記配信日時を書き換える手段とを有する請求項７記載の時間指定番組コンテンツ配信システム。

【請求項９】　前記番組情報設定管理手段は、前記番組情報に基づいて表形式の番組表を番組視聴端末側で生成する番組表生成手段を備えている請求項７記載の時間指定番組情報提供システム。

【請求項１０】　少なくとも配信日時を含む番組情報と、当該日時に送信される番組コンテンツをネットワークを通じて受信するプログラムであって、

配信日時と配信サーバのアドレスを登録した番組情報を受信するステップと、

ネットワークを通じて前記番組管理サーバから得た前記番組情報を登録するステップと、

前記配信日時に前記番組コンテンツ提供サーバにアクセスするステップと、

前記番組コンテンツ提供サーバから得られた番組コンテンツを再生するステップとからなるプログラムを格納した格納媒体。

【発明の詳細な説明】

【０００１】

【発明が属する技術分野】本発明は、インターネット等のネットワーク環境で提供される時間指定で配信される情報提供サービスにおいて、クライアントにとって情報配信時間の把握が容易となる技術に関する。

【０００２】

【従来の技術】ＴＣＰ／ＩＰによるデータ通信システムであるインターネット上において、通信基盤の整備が進んでくると、大容量なマルチメディアデータの配信が可能になってきた。これにともなって、テレビ放送のように、あらかじめ設定された日時にコンテンツ（番組内容）の提供を受けるシステムが構築されつつある。

【０００３】ところでインターネットにおいて、ユーザーが前記のような配信時間を設定されているコンテンツの閲覧を希望する場合には、あらかじめブラウザと呼ばれる閲覧プログラム上で動画再生が可能な再生プログラ

ムをプラグインのような形式で待機させておく。そして、配信時間になったらユーザーは前記ブラウザでインターネット上のＵＲＬと呼ばれるアドレスを指定する。そして当該アドレスで指定されたサーバよりコンテンツの配信が開始されると、ユーザー側のブラウザ上では、コンテンツのデータ形式に対応して前記再生プログラムが起動してブラウザ上で動画像の視聴が可能となる。

【０００４】しかし、このような配信時間が指定されたコンテンツを受信するときに、サーバ側の何らかの原因でコンテンツ配信の開始時間が遅延した場合、ユーザーは端末装置のブラウザを起動しておいて待機しなければならなかった。たとえばスポーツ中継における天候状態の変化等による開始時間の変更がこれに該当する。

【０００５】また、あらかじめ配信時間の変更が決定した時点でサーバより各ユーザーに対して電子メール等の通知手段を用いて配信時間の変更を通知する方法もあるが、コンテンツの受信予約はユーザー側の端末上のプログラムで一方的に行われるため、サーバ側で全てのユーザーのメールアドレスを管理しておくことは困難であった。

【０００６】さらに、ユーザー側では自分がどのコンテンツの配信予約を行っているのかを視覚的に把握する手段がないため、ユーザーは自分自身が予約したコンテンツの視聴日時をあらかじめ書きとめておかなければならなかった。

【０００７】本発明はこのような点に鑑みてなされたものであり、ユーザーが端末上で予約登録したコンテンツの配信内容に変更があった場合に、当該予約内容を変更後の内容に自動的に更新するとともに、ユーザーにとって予約内容の把握が容易な技術を提供することを第１の技術的課題とする。

【０００８】一方、ネットワーク上でのマルチメディア情報の規格として、Ｗ３Ｃ(World Wide Web Consortium)のＳＭＩＬ(Synchronized Multimedia Integrated Language)１．０では、音声情報、動画情報、テキスト情報、画像情報を組み合わせたマルチメディアプレゼンテーションについて画面のどの部分にいつ表示するかといった同期情報の定義が規定されている。

【０００９】しかし、これらのＳＭＩＬを利用したマルチメディア情報を、ＳＭＩＬ製作者にとって労力的な負担を少なくしてユーザーに対して効果的に表示するかといった点については、従来技術ではあまり考慮されていなかった。

【００１０】そこで本発明では、ネットワークでの番組配信における製作者側の負荷を低減し、ユーザーに対して効果的な情報表示を行うことを第２の技術的課題とする。

【００１１】

【課題を解決するための手段】本発明は、配信サーバにアクセスして番組情報を取得しておく際に、取得日時を記録しておき、取得日時毎の配信日時を比較して、番組コンテンツの配信時間が変更になったことを検出した場合には、当該変更内容に基づいて前記配信日時を書き換えるようにした。

【００１２】また、番組コンテンツの受信に先だちまたは受信と同期して広告提供サーバから広告コンテンツを受信して該広告コンテンツを再生するようにしたものである。

【００１３】ここでネットワークとはたとえばインターネット網を意味し、番組配信とは、たとえばリアルネットワークス社(Real Networks Inc.)のリアルプレイヤー(Real Player)等で再生される番組の配信を意味する。

【００１４】スポーツ中継の試合スケジュールの変更にともなって配信日時が変更になったような場合に、番組管理サーバの内容が更新されると、番組視聴端末側の番組情報もその取得日時を参照することで更新の要・不要が簡単に判定でき、ユーザーからの設定変更を待つことなく番組情報の自動更新が可能になる。

【００１５】このような技術は、具体的には、番組視聴端末上のブラウザプログラムへのアドインプログラムあるいはヘルパーアプリケーションとして提供可能であり、記憶媒体とは、ＣＤ－ＲＯＭ、フロッピーディスク等のあらゆるプログラム記憶媒体を含む。

【００１６】

【発明の実施の形態】以下、図面に基づいて、本発明の実施の形態を説明する。

【００１７】

【実施例１】図１は、本発明のシステム構成を示している。同図において、１ａは番組管理サーバであり、番組情報１ｂと、番組表生成部１ｃとを有している。

【００１８】番組情報１ｂは、番組内容のカテゴリと、提供日時と番組名称（番組ＩＤ）とを登録する形式となっており、番組表生成部１ｃはこの番組情報１ｂに基づいて図２に示すようなＨＴＭＬ(Hyper Text Mark-up Language)形式の放送予定番組表を生成する機能を有している。

【００１９】番組提供サーバ１１は、実際の番組データであるコンテンツを提供するサーバであり、番組管理サーバ１ａの番組情報１ｂで規定された時間に番組データをネットワーク２上に配信する機能を有している。

【００２０】広告提供サーバ１０１は、広告コンテンツを配信するためのサーバであり図１０に示すような静止画または動画からなる広告コンテンツを番組視聴端末１０に送信可能となっている。

【００２１】課金管理サーバ１０３は、図示しない決済システムと連動しており、後述の番組視聴端末１０での番組予約時または番組コンテンツ視聴時に当該ユーザーのクレジットカード口座または銀行口座等より直接課金処理を行えるようになっている。なお、この課金管理サーバ１０３には、ポイントテータベース１０４が設けら

れており、番組毎または視聴時間毎に設定された点数が当該ユーザーに対して蓄積され、課金額の割引その他の特典の提供が可能となっている。

【００２２】番組視聴端末１０は前記番組管理サーバ１ａ等とは、ネットワーク２を経由して接続されている。この接続プロトコルにはＴＣＰ／ＩＰ、すなわちインターネットが採用されており、接続形式は、常時接続形式でも一時的なダイヤルアップ接続形式でもよい。

【００２３】番組視聴端末１０は、パーソナルコンピュータ、あるいはウェブＴＶ等の通信手段（図示省略）と閲覧手段（ブラウザ４）とを備えたコンピュータシステムで構成されている。

【００２４】番組視聴端末１０上のオペレーティングシステム上では、このブラウザ４(WebBrowser)と、番組視聴管理プログラム３(Stream Reminder)が機能している。ここでブラウザ４は、たとえばマイクロソフト社のウィンドウズ上で閲覧アプリケーションとして動作するインターネットエクスプローラ等がこれに該当する。このブラウザ４にはあらかじめリアルネットワークス社のリアルプレイヤー等の動画再生用プラグインアプリケーションがインストールされており、特定のサーバアドレス（ここでは番組提供サーバ１１）を指定することによって当該サーバ（ここでは番組提供サーバ１１）に蓄積された動画像（番組コンテンツ）が閲覧可能となっている。

【００２５】番組視聴管理プログラム３は、番組視聴管理部５と、ユーザーが視聴を予約した番組内容を記憶する番組情報設定ファイル６と、番組表をＨＴＭＬ形式で生成する番組表生成部７とで構成されている。番組情報設定ファイル６は、具体的には番組視聴端末１０の記憶装置１０２内に記憶されるようになっている。

【００２６】上記構成において、ユーザーが番組の視聴予約を行う場合には、まず、ブラウザ４を起動して番組管理サーバ１ａにアクセスする。これにより番組管理サーバ１ａの番組表生成部１ｃが生成する番組表が図２に示すような形式でブラウザ４上に表示される。

【００２７】この状態で、ブラウザ４上でユーザーがたとえば８月５日２３：００に設定されているＪリーグインターネット中継をマウス等の座標指示装置で指定することにより、当該番組に関する番組情報が番組管理サーバ１ａより取得される。

【００２８】この番組情報には、番組提供サーバ１１のＵＲＬと当該番組情報の取得日時が含まれており、これらの情報は下記のような形式で番組情報設定ファイル６に登録される。

【００２９】update href="http://chanclo.impress.co.jp/jleague.ipg"
uptime value="01/Aug/1998 19:12:22 +09"
この番組情報の取得日時は１９９８年８月１日午後７時であることがわかる。

【００３０】なお、この番組情報の取得日時とは、実際に番組データの配信が予定されている日時ではなく、番組データに関する情報がユーザー側の番組視聴端末１０側に取得された日時を意味している。

【００３１】なお、ユーザー側における予約状況の確認は、番組視聴管理部５が生成する図３に示す番組予約確認リストにより可能である。当該予約確認リストには、予約された番組のカテゴリ「イベント番組」、日時「９８年８月５日（水）２３：００」、番組内容「１９９８Ｊリーグインターネット中継～」が表示されている。

【００３２】この番組情報が、何らかの都合により配信の日付が変更となり、８月１２日（水）の２３：００からの配信予定となった場合を仮定する。このとき、当該番組配信予定の変更情報は、まず番組管理サーバ１ａ上に反映され、該番組管理サーバ１ａにおいて、配信日時の変更情報の更新が８月５日午前９時の時点で行われていたものとする。

【００３３】次に、番組視聴端末１０上の番組視聴管理プログラム３が起動されると（ステップ４０１）、番組視聴管理部５は、その日に放送される予約番組が存在するか否かをチェックする（４０２）。ここでその日にユーザーが視聴予約を行っている番組が存在する場合には、当該番組情報の存在する番組管理サーバ１ａにアクセスし（４０３）、当該番組管理サーバ１ａから番組情報の取得を行う（４０４）。

【００３４】ここで、番組視聴管理部５は、自身の番組設定ファイル６と番組管理サーバ１ａ側の番組情報ファイルとを比較し、番組管理サーバ１ａ側の番組情報ファイルが更新されていない場合には、未更新通知を受領し（４０６）、自身が保有する番組設定ファイル６が最新のものであることを確認する。

【００３５】一方、番組管理サーバ１ａ側の番組情報ファイルが更新されていた場合には、当該更新された番組情報ファイルを受信し、自身の番組設定ファイル６を書き換える（４０７，４０８，４０９）。

【００３６】ここでは、ユーザーが予約した８月５日の番組が８月１２日に変更になっており、前述の番組情報ファイルが番組管理サーバ１ａ側では、uptime value="05/Aug/1998 09:12:22 +09"となってる。そのため、この番組情報は８月５日午前９時に更新されたことがわかるので、前述の取得日時である８月１日午後７時よりも新しいため、番組視聴管理部５の番組情報が新しい番組情報に更新される。この結果、番組視聴管理部５が管理する番組情報もその配信日時が８月５日２３：００から８月１２日２３：００に変更される。

【００３７】変更結果は、図５に示すように番組予約確認リストにより確認可能である。また、このような番組情報は、番組視聴管理部５より番組表生成部７に引き渡されて図６に示すようなローカル番組表としてブラウザ４上に表示することも可能である。

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【００３８】図７はこのようなローカル番組表を用いた番組情報の更新手順を示している。まず、番組管理サーバ１ａの番組表生成部１ｃで生成されたＨＴＭＬ形式の番組表をユーザー側のブラウザ４に表示させる（７０１）。

【００３９】そして、ユーザーはブラウザ４上に表示された番組表から視聴を希望する番組をマウス等の座標指示装置で指定する（７０２）。このとき、番組管理サーバ１ａからは指定された番組情報ファイルがブラウザ４に送出される（７０３）。

【００４０】ブラウザ４ではこの番組情報ファイルを受け取ると、番組視聴管理プログラム３を起動して（７０４）、当該番組情報を番組視聴管理部５に登録する（７０５）。また、これとともに番組情報設定ファイル６を生成し、番組情報の更新日時の管理を開始する。

【００４１】次に、ブラウザ４より、番組表生成が指示されると（７０６）、前記番組視聴管理部５が受信した番組情報に基づいて番組表生成部７において、ＨＴＭＬファイル形式でローカル番組表が生成され（７０７）、これがブラウザ４上に表示される（７０８）。

【００４２】番組視聴管理部５は、定期的に番組管理サーバ１ａにアクセスして、予約されている自身の番組情報が更新されていないかどうかをチェックする（７０９）。具体的には、番組設定ファイル６を用いてその番組情報の取得日時以降番組管理サーバの内容が変更されていないかどうかでチェックすることができる。

【００４３】ここで、番組管理サーバ１ａの番組情報が更新されている場合には、当該更新された番組情報ファイルを受信し（７１０）、この更新された番組情報ファイルに基づいて番組表生成部７は新たなローカル番組表を生成する（７１１）。そして、この更新された番組表はブラウザ４上に表示される（７１２）。

【００４４】なお、このとき、番組情報ファイルに基づいて、ＣＳＶファイル形式で日時、番組名称のデータを個人スケジュール管理アプリケーションに掃き出すようにしてもよい（７１１ａ）。具体的には、当該パーソナルコンピュータのＯＳ上にOutLook（マイクロソフト社の個人情報管理アプリケーション）がインストールされている場合には、このアプリケーションにインポートできるような形式で番組情報を出力させればよい。これにより、ＨＴＭＬ形式での番組表とともに、ユーザーは個人スケジュール管理アプリケーション上でも番組視聴予約を確認することができる。

【００４５】

【実施例２】図８は、実施例１で説明した番組の視聴を促すためのシステム構成を示したものである。

【００４６】本実施例２では、番組提供サーバ１１または広告提供サーバ１０１よりネットワーク２を介して提供される静止画、音声、動画情報に対して、テキストファイルとこれらを統合的に管理する管理ファイルはユーザー端末側で生成してブラウザ４上の再生プログラム１２で再生することにより、サーバ側の負担を低減するものである。

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【００４７】まず、番組視聴管理部５は、タイマ１３からの時刻情報と、自身が保有する番組情報の日時情報とを比較し、視聴予定時間の数時間前になると図１１に示すようなダイアログを自身の記憶手段から読み出してブラウザ４上に表示する（９０１）。

【００４８】同図に示されたダイアログがマウス等の座標指示手段により指定されると（９０２）、番組視聴管理部５は、番組提供サーバ１１または広告提供サーバ１０１から受信した静止画ファイルと、自身の記憶装置１０２内に保有しているテキストファイル９と自身で生成した管理ファイルとを再生プログラム１２に引き渡す（９０４）。

【００４９】この管理ファイルは、たとえば実施例１で説明した番組提供サーバ１１から番組視聴管理部５があらかじめ受信しておいた番組情報に基づいて生成される（９０３）。

【００５０】この管理ファイルには、少なくとも前記静止画ファイルとテキストファイルとを画面上のどの位置でどの時間に再生するかという管理情報を含んでいる。再生プログラム１２は、この管理ファイルの情報に基づいて、前記テキストファイルと静止画ファイルとを再生する（９０５）。この再生結果の一例を示したものが図１０および１２である。

【００５１】このように、本実施例２では、番組提供サーバ１１から提供された静止画ファイルと、ユーザー端末側で生成されたテキストファイルを、管理ファイルで同期させて画面上に再生することにより、サーバ側で一括して全てのファイルを提供する場合に較べてサーバからの転送データの低減、番組制作側の労力低減を図ることができ、さらにユーザーに対して広告効果の高い情報を提供できる。

【００５２】

【実施例３】本実施例は、番組コンテンツに先だって提供される広告コンテンツの種類に関する実施例である。

【００５３】番組視聴端末１０での番組視聴時には、番組視聴端末１０から番組提供サーバ１１のＵＲＬが指定されることにより、当該番組提供サーバ１１に格納された番組コンテンツが番組視聴端末１０にダウンロードされる。このとき、番組視聴管理部５は、番組情報設定ファイル６の中からバナーＩＤを読み出す。このバナーＩＤは広告提供サーバ１０１に格納された広告コンテンツのＵＲＬを指定するものであり、番組毎に一義的に広告コンテンツが決定されるようになっている。

【００５４】この広告コンテンツのブラウザ４上における具体的な表示例を示したものが図１０である。このとき、実施例１で説明したように、広告コンテンツの静止画ファイルは広告提供サーバ１０１からダウンロード

し、テキストファイル９は自身の記憶装置１０２内から読み出すようにしてもよい。

【００５５】以上の説明では、広告コンテンツは番組情報からバナーＩＤとして一義的に決定されるとして説明したが、広告コンテンツの提供に際しては、図１３に示したコンテンツテーブル１３０１を用いてもよい。このコンテンツテーブル１３０１は、番組視聴端末１０の記憶装置１０２内、または広告提供サーバ１０１に設定されている。当該コンテンツテーブル１３０１は、番組視聴端末１０で番組コンテンツの視聴を行うユーザーのアドレスと、その番組コンテンツのカテゴリと、当該カテゴリに対応した広告コンテンツのＵＲＬとが対応付けられている。

【００５６】ここで、番組コンテンツのカテゴリは、番組提供サーバ１ａの番組情報１ｂをダウンロードするときに番組情報設定ファイル６にそのまま複写しておくことで当該番組コンテンツのカテゴリを取得できる。

【００５７】コンテンツテーブル１３０１では、この番組コンテンツのカテゴリに基づいて視聴者であるユーザーに最適な広告コンテンツを提供できるようになっている。すなわち、ユーザーが番組視聴予約を行った番組コンテンツが「野球中継」であるとすると、そのカテゴリとして「スポーツ」が設定され、スポーツに関連する広告コンテンツのＵＲＬが決定されるようになっている。

【００５８】このようにして、ユーザーには予約した番組コンテンツの配信に先だって、あるいは番組コンテンツの配信と同期してこの番組のカテゴリに適した広告コンテンツを視聴することができる。

【００５９】また、番組提供者側としては、このコンテンツテーブル１３０１を設定しなおすことにより、スポンサー等の企業ＰＲ用の広告コンテンツを番組視聴に際して提供することができる。

【００６０】

【実施例４】本実施例は、実施例１で番組予約視聴を行う際に、当該番組の予約録音・録画機能を付加した実施例である。

【００６１】本実施例４は、番組視聴管理部５において、番組情報設定ファイル６への番組予約の際に視聴予約とともに、番組コンテンツの録音・録画予約も行えるようになっている。

【００６２】この機能を実現するために、番組情報設定ファイル６の作成時に保存先ファイル名を指定できるようにしておく、この保存先ファイルは記憶装置１０２に設定される。

【００６３】また番組視聴管理部５は、録音・録画部１４０１を有しており、この録音・録画部１４０１は番組視聴管理部５のプログラムの一つとして、番組コンテンツデータを音声データまたは動画データファイルとして記憶装置１０２に保存する機能を有している。

【００６４】次に、図１４を用いて本実施例の処理手順を説明する。まず、番組管理サーバ１の番組情報に基づいて番組視聴管理部５が番組予約を行う際に、保存先ファイル名をユーザに指定させる（１４０１）。ここでファイルは記憶装置１０２に設定されるが、ファイルの指定がないときにはデフォルト値として、番組視聴管理部５が予約日時のデータから自動生成してもよい。

【００６５】次に、番組放送予定時刻になると、図１１に示すようなダイアログがブラウザ４上に表示される（１４０２）。ここで、図１１に示した再生ボタン(Play)をユーザが指定すると（１４０４）、通常の番組視聴プログラム中の再生プログラムが起動するとともに、録音・録画プログラム（録音・録画部１４０１）を起動させる（１４０５）。

【００６６】前記番組視聴管理部５からの起動指示により、録音・録画部１４０１は、再生データ（音声データまたは動画データ）を番組情報設定ファイル６で定義されたファイル名で記憶装置１０２に記録する（１４０６）。

【００６７】このようにして、記憶装置１０２内には録音・録画予約した番組コンテンツが蓄積される。なお、ステップ１４０３では、ユーザが再生指示を行うことで録音・録画機能が起動する例で説明したが、このようなユーザ側の操作なしに番組開始時間になったら番組視聴管理部５は直ちに録音・録画部１４０１を起動させるようにしてもよい。

【００６８】また、番組予約は全ての番組に対して有効なものではなく、たとえばスポーツ中継やコンサート等の番組でコンテンツ提供者側の意図により録音・録画を許可しないようにすることも可能である。

【００６９】たとえば、予約時の番組情報設定ファイルへの登録に際して、番組視聴管理部５は番組管理サーバ１への問い合わせを行い、録音・録画予約が許可されている番組か否かをチェックできるようにしてもよい。

【００７０】

【発明の効果】本発明によれば、番組配信内容の変更に柔軟に対応でき、番組視聴端末側の番組情報の自動更新が可能となる。また、番組制作側の労力を低減して、視聴効果の高い情報を提供することができる。

【図面の簡単な説明】

【図１】　実施例１におけるシステム構成図

【図２】　番組管理サーバで生成された番組表の例

【図３】　番組視聴端末上に表示される番組予約確認リストの例

【図４】　番組情報の更新手順を示すシーケンス図

【図５】　更新後の番組予約確認リストの例

【図６】　ローカル番組表の例

【図７】　ローカル番組表を生成した場合の番組管理サーバとの処理手順を示すシーケンス図

【図８】　実施例２におけるシステム構成図

【図９】　実施例２における番組提供サーバとの処理手

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順を示すシーケンス図

【図１０】　実施例２における番組視聴端末上での表示例（１）

【図１１】　番組視聴端末上に表示されるダイアログ

【図１２】　実施例２における番組視聴端末上での表示例（２）

【図１３】　実施例３におけるコンテンツテーブルの説明図

【図１４】　実施例４における番組の予約録音・録画の手順を示すシーケンス図

【符号の説明】

１ａ　番組管理サーバ

１ｂ　番組情報

１ｃ　番組表生成部

２　ネットワーク

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３　番組視聴管理プログラム

４　ブラウザ

５　番組視聴管理部

６　番組情報設定ファイル

７　番組表生成部

９　テキストファイル

１０　番組視聴端末

１１　番組提供サーバ

１２　再生プログラム

１３　タイマ

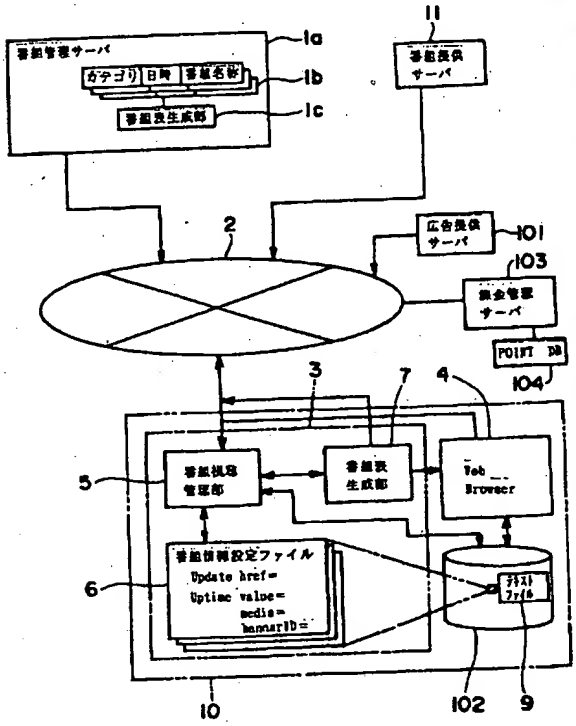
１０１　広告提供サーバ

１０２　記憶装置

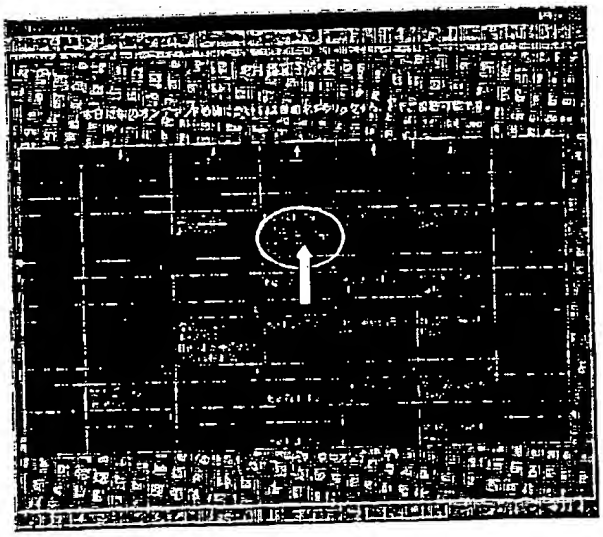
１０４　ポイントデータベース

１３０１　コンテンツテーブル

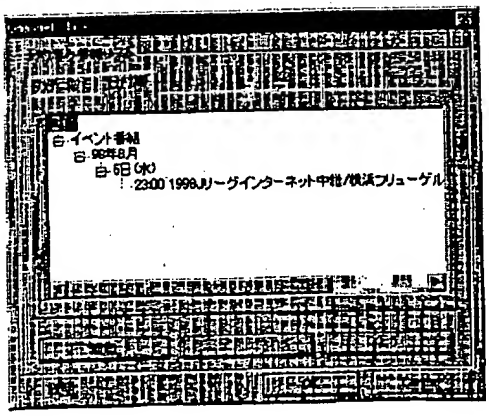
【図１】



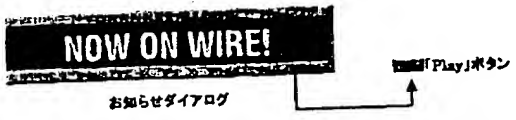
【図２】



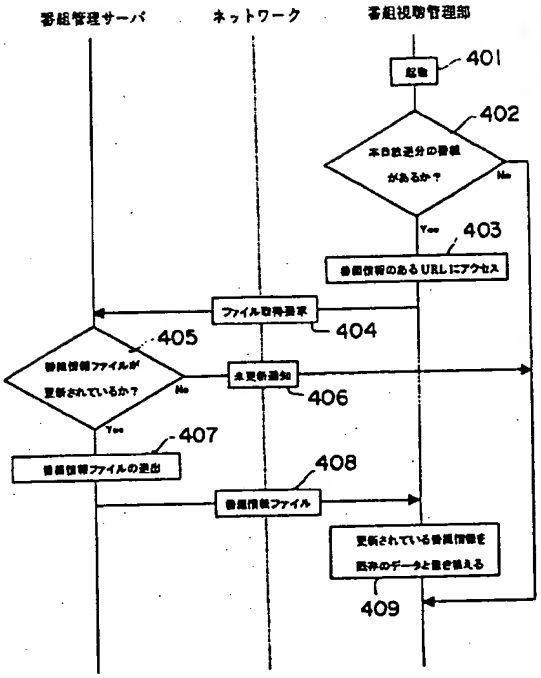
【図３】



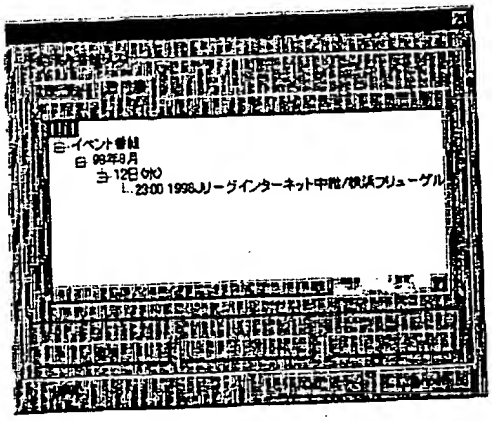
【図１１】



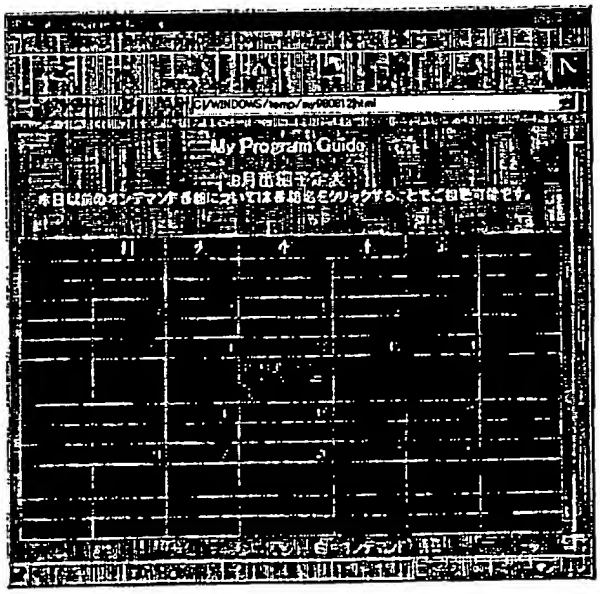
【図４】



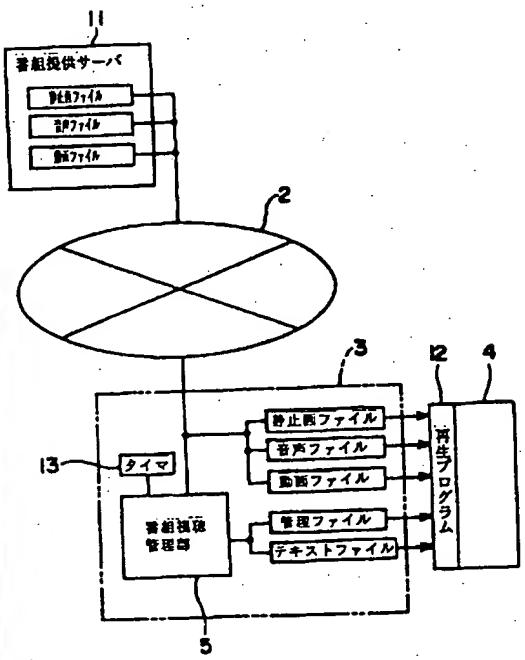
【図５】



【図６】

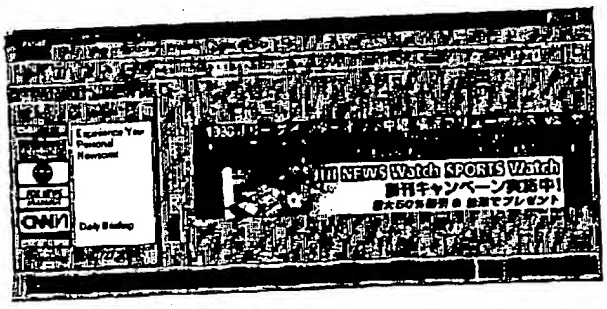


【図８】

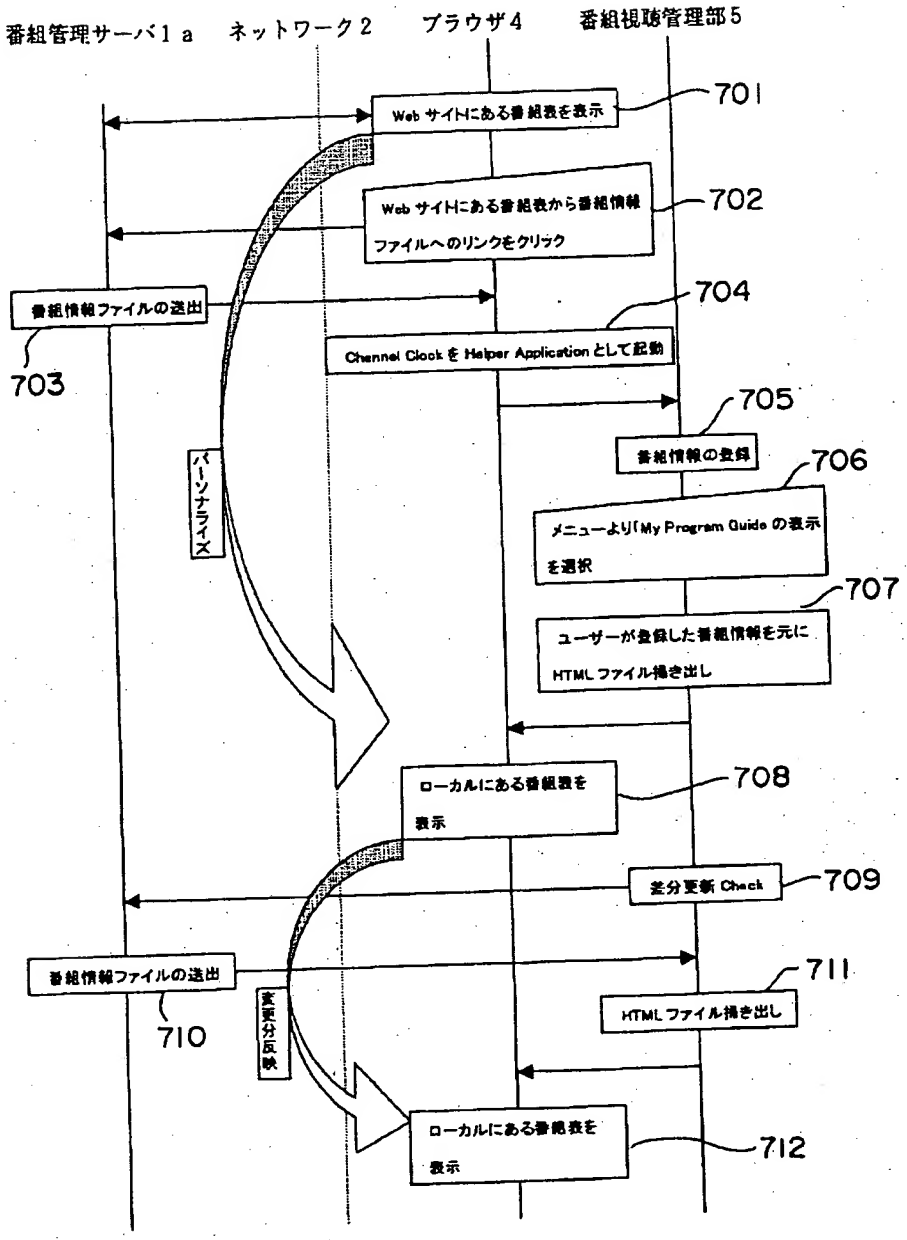


【図１０】

【図１２】



【図７】



【図１３】

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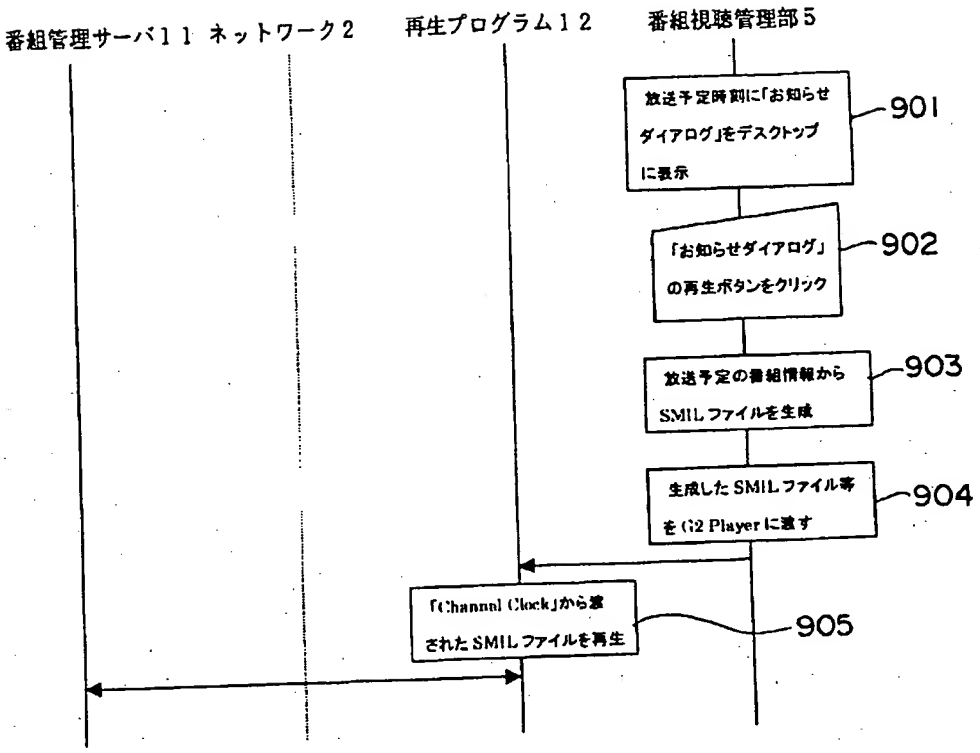
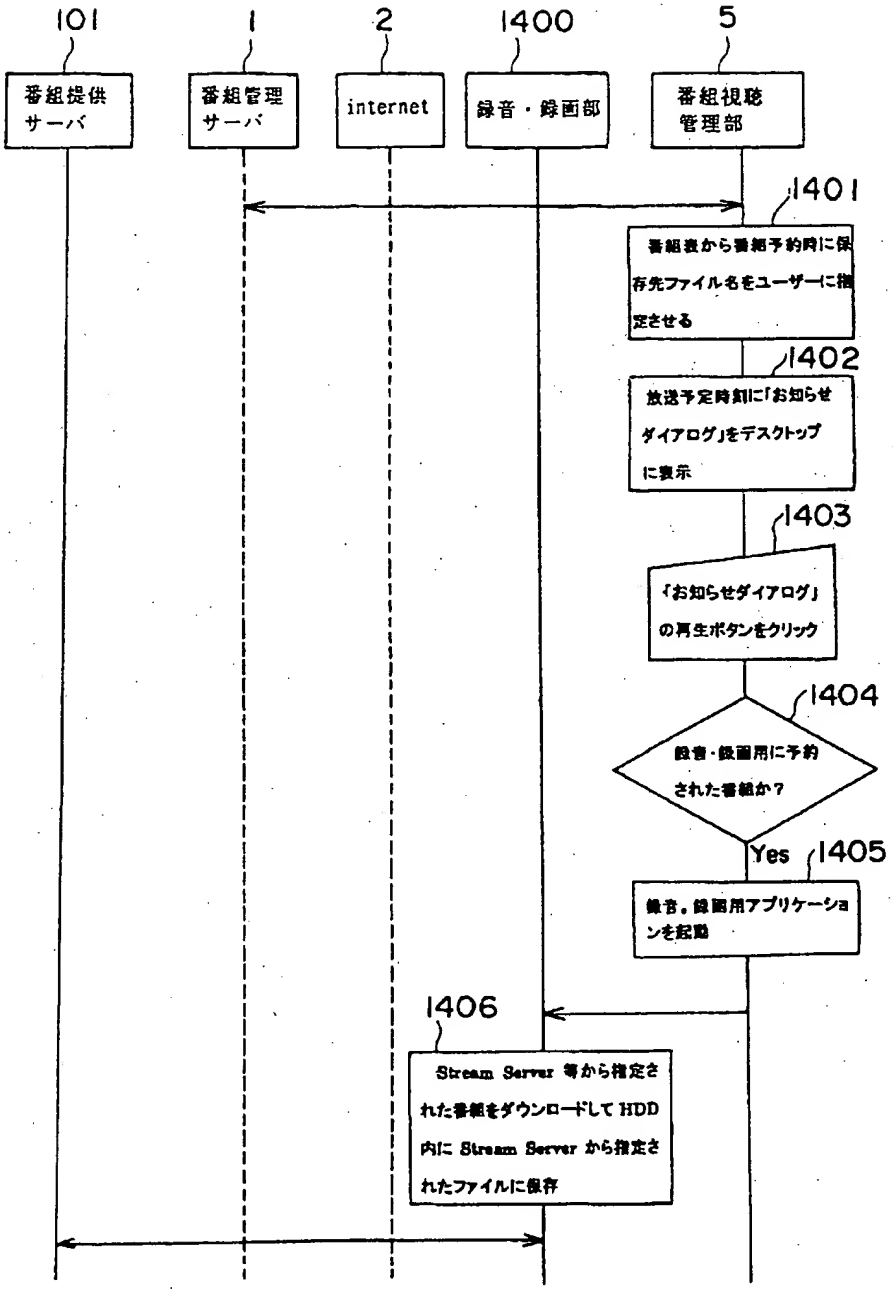
ユーザーアドレス	カテゴリ	提供広告コンテンツ
abcd ⓐ impress.co.jp	音楽	http://www.xyz.html http://www.abc/xy
	スポーツ	http://abz/xyL/
zzz ⓐ abc.ne.jp	教養	xyz.exe
⋮	⋮	⋮

【図９】


番組管理サーバ１１
ネットワーク２
再生プログラム１２
番組視聴管理部５
放送予定時刻に「お知らせダイアログ」をデスクトップに表示
901
「お知らせダイアログ」の再生ボタンをクリック
902
放送予定の番組情報からSMILファイルを生成
903
生成したSMILファイル等をG2 Playerに渡す
904
「Channel Clock」から渡されたSMILファイルを再生
905

【図１４】



フロントページの続き

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